

1869.

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FARMER'S ALMANAC

TAKE THIS HOME!

"THE KIRBY"

It Mows! It Reaps! It Rakes!



THE BEST COMBINED MACHINE IN THE WORLD!

Manufactured by

D. M. OSBORNE & CO.,

AUBURN, N. Y.

E. W. Godey, General Agent.

For Sale at _____

By James J. Maurice Agent.



THE COMBINED KIRBY AND A MOWER.

For Price See Page 2d.

50,000 SOLD.

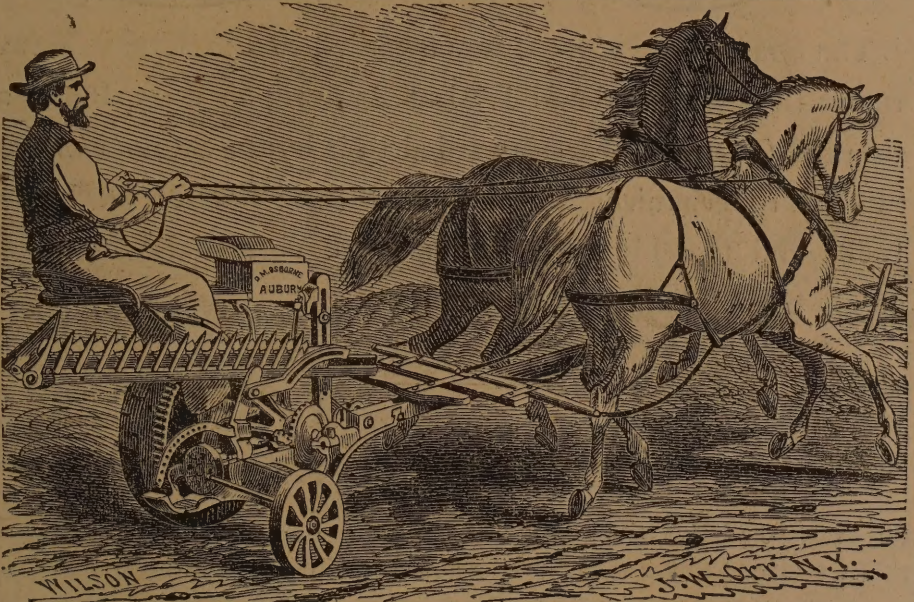
1869.

"THE KIRBY."

IT MOWS. IT REAPS. IT RAKES.

A PERFECT MOWER, A PERFECT REAPER, A PERFECT HAND-
RAKER, AND A PERFECT SELF-RAKER,

ALL COMBINED IN THE SAME MACHINE.



ON THE ROAD.

MANUFACTURED BY

D. M. OSBORNE & CO., AUBURN, N. Y.

BRANCH OFFICES AND DEPOTS.

733 Market St., Philadelphia, Pa.
64 River St., Cleveland, Ohio.

1246 Broadway, St. Louis, Mo.
67 and 69 Canal St., Chicago, Ill.

For Sale by

At

Agent.



The Grand Gold Medal was awarded to the KIRBY HARVESTER at the great National Trial at Auburn, in July, 1866; also a Grand Gold Medal was awarded to it by the St. Louis Agricultural and Mechanical Association, at their Fair at St. Louis in 1866; and two highest premiums (Silver Medals) at the Minnesota State Trial at Rochester, 1867.

PRICES OF THE KIRBY FOR 1869.

Kirby's Combined Mower and Reaper, Hand Raker,.....	5 feet cut,.....	\$140
Kirby's Combined Mower and Reaper, Hand and Self-Rake,.....	5 feet cut,.....	180
Kirby's Combined Mower and Reaper, Hand and Self-Rake,.....	6 feet cut,.....	200
Kirby's Reaper only, with Self-Rake,.....	6 feet cut,.....	180

 Cash, delivered on the Cars at Auburn.

WARRANTY.—That they are well built, of good material, and capable of cutting, with one span of horses, an acre of grass or grain per hour. The purchaser to have the privilege of cutting two acres of grass or grain as a trial of the machine. If it should not work well, he shall give notice to the agent, and allow him time to send a person to put it in order. If it cannot then be made to work satisfactorily, it will be taken back and considered no sale.

THE KIRBY FOR 1869.

AUBURN, N. Y., Jan. 1, 1869.

Having just experienced the most brilliant season ever known in the annals of Reaping Machines, and being about to enter upon another, which bids fair to be still more brilliant, we desire to have a few words with our friends, the farmers, explanatory of our great success. To those who have used the Kirby, no explanation is necessary. They know that we have given them a machine almost perfect—built with great care, and of the very best material, and one constructed upon the soundest principles of mechanics.

In proportion as competition increases, and new machines spring into existence, or old machines take a new start, the success of the Kirby becomes greater. The more hostile agents cry it down and try to drive it from the market, the more intelligent farmers are disposed to take it up, make its cause their own, and help along the sales. Why this should be the case, is plain. The Kirby is the simplest, cheapest, most durable, and in many other respects the best machine ever made. Every part is built most carefully, and is most carefully put together. No machine leaves the shop without being first thoroughly tried, so that we know it will work perfectly.

The very heavy harvest of 1868 subjected Reapers and Rakes to as severe a test as is likely to occur for many years, and proved our new Rake to be the lightest draft, strongest, and most perfect working Rake in the market, and one adapted to all kinds and conditions of grain—long or short, thick or thin, lodged or standing.

Our works are the most complete and extensive, of the kind, in the world, and afford facilities for turning out a finished machine every fourteen minutes.

Since the harvest we have made several improvements in the Kirby, so that we expect to put into the market for 1869, a machine still nearer perfection than that of 1868. We of course cannot but be pleased with our former success, and as we expect in the future to follow out the course of honesty and liberality we have hitherto followed, we trust we shall receive that patronage from farmers which we are convinced the worth of the Kirby should attract to us.

D. M. OSBORNE & CO.

A WORD WITH THE FARMERS.

The conviction is every day becoming more settled among farmers, who are often solicited to try some new Patent or so-called invention, that the only safe course is to let every thing new alone, and to accept only those machines which years of testing and use have proved to be reliable. Every day some new "thing" is brought out, and, whether it is really an improvement or not, it is manufactured and put upon the market, and farmers are asked to buy it, because on its face it appears to work in a novel manner, and accomplish some result not before attained. Its combination with the machine it is said to "improve" may be altogether unpractical, and a detriment instead of a benefit, yet farmers are imposed upon by the "experienced" agent, who will come and work the machine before his eyes, and "demonstrate" its capability, and offer to "give him the machine" if it does not work "exactly as warranted," until he is persuaded to buy it upon the untried promise that it is novel and will save labor. But when the farmer attempts to work it without the aid of the agent, he finds his labor increased often ten-fold; his temper badly damaged, and that the nicely painted machine, that was promised to do so much, is a worthless humbug.

A due consideration of these facts will serve to guide a farmer in the selection of a Mower and Reaper. And the conclusions to which they would direct him evidently are:

First—To buy no machine that has not a reputation based upon actual and long-continued service.

Second—When a machine has been quickly worn out, because it has proved itself defective in some principle of its construction, not to buy another with that same bad principle in, but applied in a different way, in the hope that you will find it successful; for no principle of construction that is bad in itself can be made to work well by being applied in a different manner.

Third—The Machines that are simplest in construction, and have the fewest parts for performing all the *necessary* work, are the most economical to buy.

This last truth is one that will be self-evident to any one who has anything to do with machinery.

Very often, the plain appearance and simple construction of a good machine are used as arguments against it; "There is nothing of it," is the objection; *that* is regarded as unanswerable; while its neighbor, with many wheels and pinions of various colors, and with a forest of levers sticking out in all directions, one "for raising and lowering the bar," one "for keeping the bar on the ground," one "for changing the angle of the knives," one "for correcting the side draft," one "for tilting the guards," etc., etc., is deemed to be the perfect machine adapted for every possible emergency. The fact is, the driver of a Mower or Reaper, if he wishes to do good work with a tolerably fast working team, will have about all he can attend to, to keep his team right, and watch the ground he is cutting over; he must be very well skilled in his business to be able besides to manage and work each one of the various levers at just the right time, and without stopping his team to do it. But a Mower constructed with its joint in the frame and not in the cutting apparatus, can pass with its finger-bar over the stones, gopher hills, and dead furrows without stopping, and without injury to any part.

A fourth rule by which a farmer should be guided in the purchase of a Mower and Reaper is: To select only from such as have been manufactured for several years, and that have been increasing in sales every year. Such a machine has the best of evidence in its favor, and always has a standing proof that it is a safe one to buy. The manufacture of the Kirby has commenced at Auburn, in 1858; the first machine was numbered 100; they have been numbered regularly on each year, and the last machine made in 1868 was numbered 27,820, so that the difference between 100 and 27,820 will show the actual number of machines *sold of our own manufacture at Auburn*; besides which, the manufacturing at Buffalo, N. Y., and Cambridge, Indiana, have made a *very large number*.

These figures demonstrate that the Kirby machine has steadily increased in popularity, and the improvements made upon it from year to year have, with the sound principles on which it is constructed, made it a deservedly successful machine. We can therefore confidently appeal to the above figures alone, as an irresistible argument in favor of the Kirby Mower and Reaper, especially calling attention to the fact that it has kept its way and increased its sales in the face of the heavy competition of the last five years.

On the back cover will be found a view of our large establishment, which has grown up in ten years from one building 35x77, to seven large buildings, each comprising a distinct department in itself. In 1858 we made 200 machines in the building No. 1 of the view; in 1859 building No. 2 was added; in 1860, No. 7, the foundry was put up; in 1862, No. 4, the machine shop; in 1863, Nos. 5 and 6 were completed; in 1864, No. 3 was erected for a store-house. In 1858 we made, as above stated, 200 machines; for the coming season of 1869, we shall have 8,000 machines ready for the market.

Our works are furnished throughout with complete sets of machinery for each department, and we do not allow anything to be done by hand when it is possible to obtain a machine to do it, no matter how much it may cost.

So perfect are our labor-saving appliances, that, with a full complement of hands, or 300, we are able to turn out a COMPLETE MACHINE EVERY FOURTEEN MINUTES, or at the rate of FOURTEEN THOUSAND A YEAR, which we have actually accomplished for a time. These facilities enable us to make a BETTER MACHINE, and afford to sell it at a LOWER PRICE THAN ANY OTHER IN THE WORLD.

Our WOOD WORK is made from the best seasoned white ash, hickory, and maple, and great care is taken that no unsound, knotty, or cross-grained lumber shall be used.

The CASTINGS are made from the best brands of pig iron in the country, a large proportion of them being made from the Salisbury ores, which are known to yield the strongest and toughest iron in the country.

All our MALLEABLE IRON is made in our own Works; we are careful that all the patterns shall be made exactly right, and that every piece is thoroughly annealed and proved before it is made part of a machine.

We make all our own KNIVES and SECTIONS of the very best steel, equal to that put in the best razors; they are TEMPERED to a superior cutting temper and by a process discovered by one of our firm and known only to him. Every section is inspected carefully by a competent man who learned his trade in one of the first-class cutlery establishments in Europe. Every one therefore is perfect, and warranted so.

All the fitting of the iron-work is done by first-class machinists, who have been in our employ for many years and have become familiar with every part of the machine. We can therefore point with some degree of pride to our

works as the most complete and extensive ever built in this country for the manufacture of Mowers and Reapers; and we do not say it in any spirit of boasting, but only in illustration of the system we have attained to, which is to

Make Every Part of the Machine Ourselves.

It is well known that the different parts of many mowers and reapers are "let out" to be made by contract; the castings will be contracted for with an iron founder, at a low price per pound; the wood work will be contracted for at a price per machine, and so on for nearly or quite every part of the machine. The consequence is, that the foundryman, in order to make a decent living profit, is tempted to mix in some irons of third or fourth grade, and so make the castings of the machine weak and brittle.

The contractor of the wood-work is tempted to put in knotty, green and dozy lumber, that will shrink, twist, or fall to pieces, after a few days of sun and rain.

The temptation to the knife-maker is to put into the knives a third or fourth quality of steel, which must be either of low temper and so have a soft "pewter" edge; or if of high temper, then the edge will crack and crumble among the stones and big weeds.

Therefore, in order to make a perfect Mower and Reaper, of sound, honest materials throughout, the only plan is for the proprietors to have thorough control and constant supervision of every process, from beginning to end.

While we have been thus particular to keep the Kirby up to a high standing of perfect workmanship, and have been careful to retain that feature which has been the main source of its wonderful success, yet we have always been on the alert to adopt every new thing for its improvement that was really good and practical, and after it had been put to severe and thorough test on the machine.

The greater part of the new features added from year to year are the result of the interest and care of Mr. Kirby and Mr. Burdick, who are constantly subjecting the machine to experiment with every new device which may promise to make it more effective.

The cut on page 8 represents the Kirby as a mower. It cuts a swath 4 feet 10 inches wide, and will cut from 10 to 15 acres per day. The driver's seat is remarkably safe, convenient, and easy. The seat also acts as a lever whereby the weight of the driver balances the weight of the frame, and throws the whole upon the driving wheel, adding to the power of the wheel, taking all pressure from the horses' necks, and lessening the draft of the machine. By means of the lever in front, the driver can throw the machine out and in gear at will. With the lever at his side he can raise either end, or both ends, of the finger-bar to pass over obstructions, carry his swath, or move from field to field. When the machine is working, the Independent Action of the finger-bar enables it to play freely up and down, and follow the inequalities of the ground, thus permitting it to do good work on very rough ground, and through furrows and ditches, and allowing the cutters to be set at any desired height both in mowing and reaping. Whatever may be the position of the cutters, the connecting-rod is always in line, and never binds the cutters as with the jointed-bar machines. *The overhanging Adjustable Reel can be used in mowing whenever desired.*

THE AUBURN TRIAL.

The Great National Trial of Mowers and Reapers at Auburn, N. Y., in July, 1866, was an event that excited great interest among manufacturers and farmers throughout the country. There had been no general trial since the Syracuse trial in 1857, and great progress and improvement had been made, in the meantime, in the construction of those important machines.

In summing up the qualities of the Kirby, as a Mower, the Judges say :

"We are bound to speak in terms of praise of the simplicity of this machine, of the excellence of its workmanship, of its freedom from noise, and of its durability. The equivalent for a jointed finger-bar is exceedingly ingenious."

After describing the mode of attaching the Reaping Attachment, they say :

"The single wheel and the absence of a joint at the shoe, instead of being a disadvantage, is now a merit. *We think, in this capacity, it is not surpassed by any machine.*"

The work of the Kirby in the Leach field is thus set forth :

"Lot No. 7 was similar in its character to lot No. 8, already described. The driver of Buckeye No. 31 had moved into this lot at starting, considerably embarrassing the driver on No. 7. It was cut by D. M. O. & Co.'s large Kirby Mower, entry No. 2. It was necessary to back occasionally on account of the grass, where it had been cut into by the Buckeye. The time was 50 minutes 6 seconds, exclusive of one minute stoppage. *The machine moved smoothly, with very little vibration or noise. The work was good. Mark of work 37. Bearings cool.*"

The next mowing was done in the Munson lot.

They give no description of the work of the various machines in this lot, but simply a table of merit-marks, for quality of work, in which the Kirby is marked 37—the same as in the clover lot. It will be remembered that, according to their programme, 30 is the average work with a scythe, and 40 perfection. So that the quality of work of the Kirby in mowing is rated much higher than the work of the scythe, and very nearly perfect.

In speaking of the general work of the Kirby machines in mowing, they say : "These machines were all remarkable for the steadiness of their motion and their freedom from noise." In another place they say : "Its chief characteristic is its great simplicity."

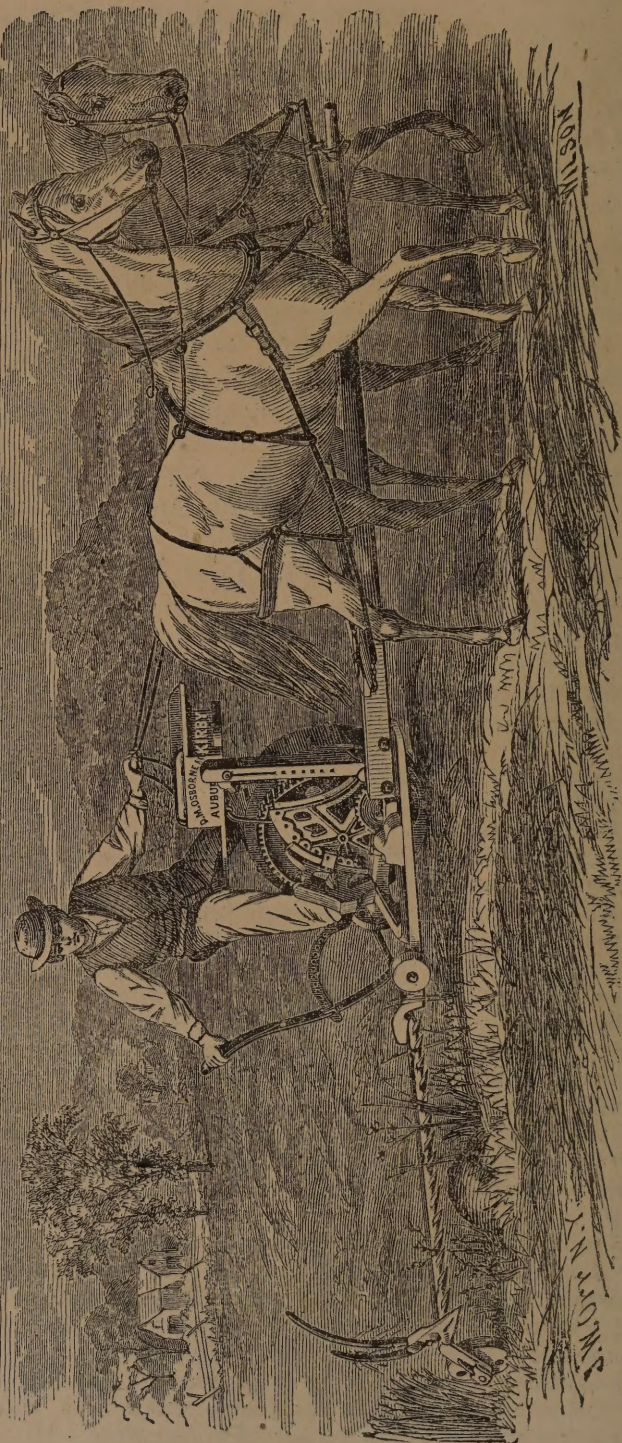
The work of the Kirby, in reaping, is thus described :

"Lot No. 4 was cut by D. M. Osborne & Co.'s (Kirby) No. 19 hand-raker. The work was as good as can be done. *Not a fault could be found with it in any way.* Ten sheaves were bound in 4 minutes 3 seconds. Time of cutting 64½ minutes. Marked for quality of work 40."

"Lot No. 11 had a stump in it near the north end; cut by D. M. Osborne's (Kirby) No. 48, with a hand rake. *The work excellent in all respects. Time 39½ minutes. Marked for quality of work 40. The shortest time made by any hand-rake was by D. M. Osborne's No. 11.*"

In another place, speaking of the work in this field, they say :

"Osborne cut No. 11 in the Leach wheat-field, and did it most admirably. *We never saw this work surpassed in any field.* His mark for quality of work was 40, which is the number of perfection."



THE COMBINED KIRBY AS A MOWER PASSING AN OBSTRUCTION.

The Kirby Combined Machine as a Mower.

The main parts of the Kirby Mower are, a strong cast-iron frame, which cannot shrink or swell, on which the gearing is carried, a finger-bar of wrought iron of such a shape as to secure perfect stiffness and strength, and a knife or cutter-bar of steel.

The driver sits with perfect security astride the seat, having the team under easy control, and the cutting apparatus forward immediately under his eye. The frame and inner end of the finger-bar are balanced and raised by the weight of the driver alone, a slight lifting by the right foot in the stirrup being all that is necessary to effect this. By a lever at the right hand, the outer end of the bar is easily raised.

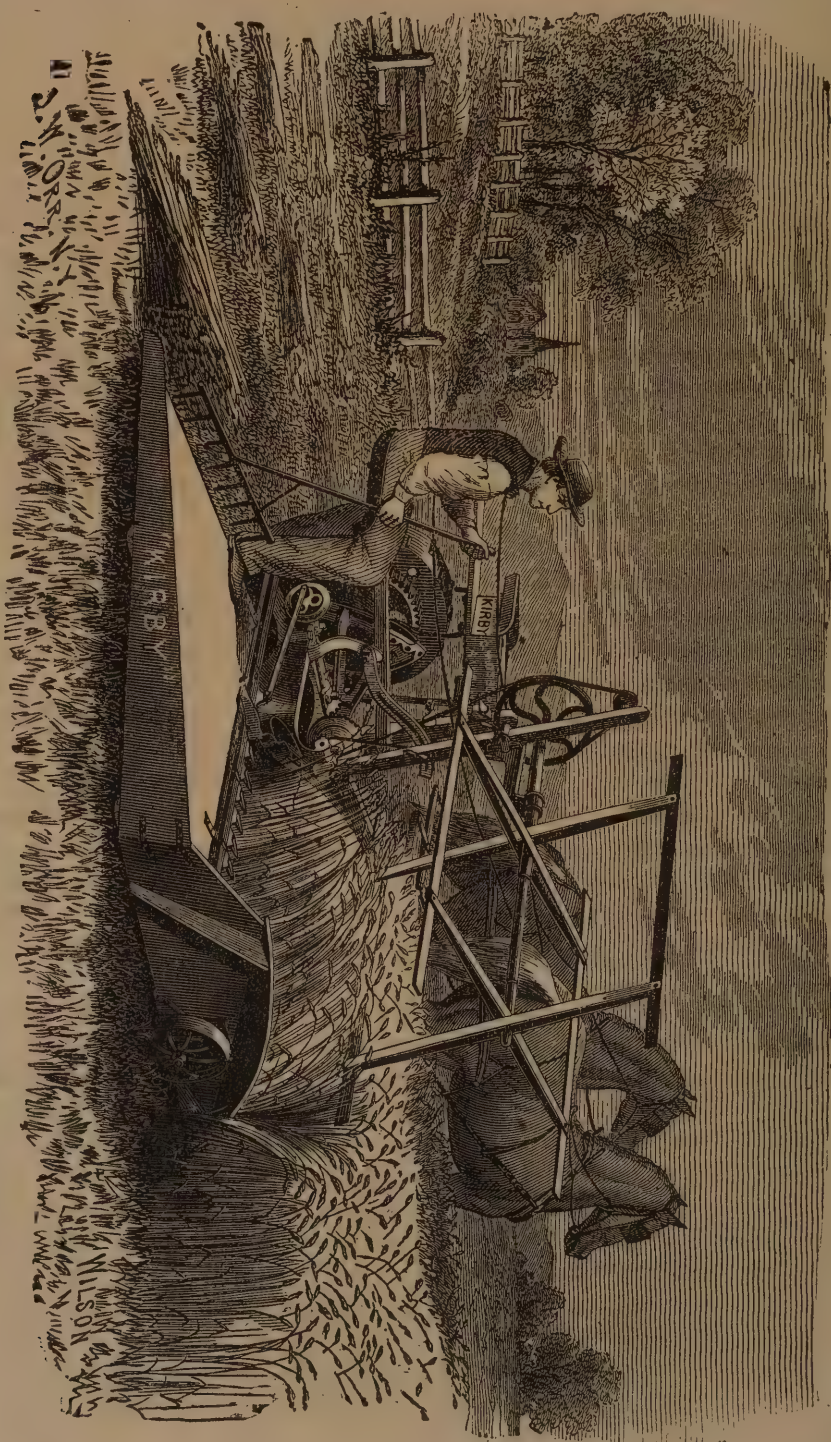
In all two-wheeled machines there must of necessity be a joint in the finger-bar (and the necessity would gladly be avoided if possible), so that there will always be a binding of the cutting gear and a tremendous strain and wear at the joint, whenever the outer end of the bar passes over an elevation. This great difficulty cannot possibly be avoided in that class of machines. In the Kirby Mower, the finger-bar has no joint whatever; it is always straight, and therefore the knives and cutting gear are always in line, and work freely and smoothly.

But the independent action (joint) which every mower must have to allow it to pass flexibly and easily over elevations and obstructions, is in the frame of the Kirby Mower, or rather in connection between the frame and the drive-wheel; and this joint in the frame answers the same purpose far more effectually and economically than the joint in the finger-bar of two-wheeled machines.

Among the improvements for the past two years, we would especially call attention to our NEW GROOVED FINGER-BAR, and the method of attaching the guards to it. The bar is rolled in such a shape as to render it very light and very strong. The guards are very firmly attached by one bolt. There is a long grooved piece attached very firmly for the head of the cutter-bar to slide in, so there is assured a perfect freedom of motion at this important point, where, in nearly all other machines, breakages are constantly occurring. We can now, with all confidence, warrant the Kirby Mower not to clog in any kind of grass, wet or dry, and to work as lightly and easily both for team and driver as any other well-tried first-class Mower in the market.

The overhanging adjustable Reel furnished with all Combined Machines to be used when reaping without the Reel Self-Rake—(see cut on page 10)—is also made to be used in *mowing* whenever desired; a point in which we are ALWAYS ahead of any two-wheeled Mower.

THE KIRBY, AS A HAND PAKER, IS EASILY MANAGED BY ONE MAN AND TWO HORSES.



The Kirby Combined Machine as a Reaper, WITH HAND RAKER.

Whatever advantages may be claimed for the two-wheeled machine when used as a mower, they all disappear when it is attempted to convert it into a Reaper. The flexibility of the machine then becomes a glaring disadvantage, and the number of wheels on the ground makes it impossible to work it with ease or safety.

When there are two drive-wheels on the frame, and a grain-wheel on the outside of the platform, with the finger-bar made rigid at the joint by chains or bolts, then, in passing over uneven ground, whatever wheel may fall into a depression, a strain will inevitably be brought upon the other two, and upon the part of the machine suspended between them; bending the finger-bar, binding the cutters, throwing the wheel out of gear, and racking the machine generally. The same effect will occur when a wheel passes over an elevation, when not fixed rigidly.

The raker's seat in such a machine must also be placed at a distance in the rear of the cutters, requiring the use of a long unhandy rake or fork to get the grain off the platform, and then in very tangled and rough gavels.

The Kirby Reaper (easily changed from the mower in a few minutes) has one drive-wheel, and a grain-wheel, which are the only bearing points on the ground. Between these, the frame, platform, reel and the cutting apparatus are rigidly suspended and carried without the least vibration or flexibility.

The cutters always work freely, and the machine in passing over depressions or elevations suffers no more strain than a cart or sulky.

The drive-wheel and grain-wheel being so far apart (over 7 feet,) the Kirby Reaper can be used on steep side-hills where an empty lumber wagon would turn over. And yet any ordinary gate or bars on the farm will allow its passage.

The raker's seat is placed near the cutters and a little in the rear of them, so that the raker without any extraordinary exertion can gather the grain into a well-shaped gavel, and bring it off with an easy sweep of his arms.

We make a castor-wheel for the grain side of the platform.

From the well-founded experience of many years, we feel warranted in asserting that there is no Reaper in the world that, for ease of work and durability, will compare with the Kirby.



KIRBY WITH NEW REEL SELF-RAKE.

Ever since the combination of a Mower and Reaper in one Machine has been successfully attained, the attention of inventors has been turned toward making a simple and durable Self-Rake. The four things requisite to make a Self-Rake successful are :

- 1—It must be simple, strong, and durable, and have very few parts.
- 2—It must be so placed as to be under easy control of the driver.
- 3—It must be able to take up "down grain," and gather it in good shape on the platform.
- 4—It must deliver the gavels in good shape for binding.

We have with others experimented from the beginning, and have tried and used many kinds of Self-Rakes, and now feel confident that our new Reel Self-Rake for 1869 will perfectly fill all the above requirements.

The Kirby Combined Machine as a Self-Raking Reaper.

A Self-Raké that will take the place of the Reel as well as of a man to rake off by hand, has been a want long felt by the farming community. To reach over into very tall grain and to gather up the short grain, and the tangled and down grain, and bring it on the platform in good condition for raking off, is something the ordinary reel cannot accomplish. A rake is therefore needed, with two or three of its arms made adjustable so as to reach down and forward, that can take up the tangled grain, bear it against the cutters and on the platform, while another arm with rake head attached may sweep it off. The devices heretofore attached to Reapers for accomplishing this work have been constructed in a very clumsy and unwieldy manner; too complicated in their action, and with too many parts to be getting out of repair, so that after one season's trial they have been put aside as impracticable. In devising a Self-Rake of this kind for the Kirby Reaper, our aim has been to make one simple in its details; knowing that however perfect the result may be, yet if it is not attained in a simple method, and by machinery calculated to stand the wear of ordinary use, it is of no benefit to the farmer.

The Reel Self-Rake answers the above requirements; it is worked by simple, light gearing from the drive wheel; it is furnished with four wings carried around a vertical axis, two or three of which, as the driver pleases, bear the beaters or arms which bring the grain on the platform, and the other one or two carry the rake head. The rake is made to run continuously or not, at the discretion of the driver. He may drive along without giving any attention to the rake, and it will then deliver a gavel at every revolution, that is to say every $20\frac{1}{2}$ feet. This is about the right distance apart for the gavels to be laid for an average stand of grain; if it is any heavier than this, then another rake-head may be put on the opposite arm in place of the beater, and the gavels will come off in every $10\frac{1}{4}$ feet. But if the grain is lighter than the average, and a revolution of one rake in $20\frac{1}{2}$ feet makes the gavels too small, then by pressing lightly on a treadle with the right foot, the rake is made to act only as a beater, passing over the grain without taking it from the platform, until the next revolution, or until the right quantity is on the platform; when by raising the foot from the treadle, the rake will sweep it off.

By this arrangement we have the *controllable* rake and the *adjustable* beaters; features belonging only to this Self-Rake. In other Self-Rakes where the four arms carry all rake heads or all beaters, it is not possible to adjust them to different heights; for they will brush over the tops of short grain, leaving a good portion uncut, or in tall grain they will strike too near the butts, carrying them to the cutters in advance of the tops, so that the tops when cut will fall over forward into the standing grain, will be mixed into it in perfect confusion, twisted around the rake, and eventually thrown from the platform in a drizzled and shapeless mass.

The improvements put upon the Reel Self-Rake this season, we are confident, will commend it to all who will give it a trial, and prove it to be in all the four test points we have named on preceding page, a Perfect Self-Rake.

PECULIARITIES OF CONSTRUCTION

OF

KIRBY'S AMERICAN HARVESTER

It is an Iron Machine.

The castings are made of Salisbury Iron—the strongest and most expensive iron in the market; the finger-bar is made of wrought iron, with a flange on the front edge, thus giving great strength for a small weight of iron, and forming the most convenient possible place for bolting on the fingers. The bolts are made of the best Norway Iron, with forged nuts. We spare no pains nor expense in selecting the best materials, that can be procured for the machine, and in workmanship and finish our aim is to excell every manufactory in the country.

It is an Independent Action Machine.

The Finger-Bar and Driving-Wheel act independently, each following its own ground, so that the Driving-Wheel can run into a hollow and the Finger-bar over a knoll at the same time; or the wheel can run in a ditch and the bar on the bank and cut. The bar can play up and down independently of the wheel from 2 to 18 inches, thus enabling it to work well on *very rough ground, lessening the liability of breakage*, and permitting the cutters to be set at *any desired height*, both in mowing and reaping.

It is a Portable Machine.

By means of a lever at the side of the driver, he can at pleasure, and while the machine is in full motion, raise either end or both ends of the finger-bar to pass over obstructions, carry his swath, or move from field to field, or ride about town for pleasure.

The Driver's Seat is a Lever.

The Driver's Seat is so pivoted over the Driving Wheel that the weight of the driver counterbalances the weight of the frame and the downward pressure upon the horses' necks, and throws the whole upon the Driving-Wheel, thus adding to the power of the wheel, materially lightening the draft of the Machine, obviating the side draft, and permitting the cutters to lift more easily over stones and obstructions, and thus rendering them less liable to injury. The Machine runs lighter and better every way with the driver's weight added than without it.

The Driver's Seat is also a very safe, convenient and easy one, he being back of the Finger-Bar, so that he can keep the working of the Machine constantly under his eye, and control its action by means of the levers within his reach, while the gentle undulatory motion of the seat relieves him of the weariness of constantly sitting in one position. There is no Machine in the country that has so *safe* a seat. The Driver sits straddle of his seat, with his feet braced in stirrups, and it is impossible to throw him, whereas in most of the Machines in the market the Driver can be easily thrown from his seat.

Adjustable Overhanging Reel.

One of our recent improvements is an Adjustable Overhanging Reel, which does away with the Reel Arm heretofore used at the outer end of the Reel. This Reel is easily adjustable to any desired position, either up or down, or backwards or forwards, without any change of belt, and can be used either in mowing or reaping. This is the only really adjustable reel in use, and has proved to be a great improvement over the old devices.

Revolving Track Clearer.

Another of our recent improvements is a Patent Revolving Track Clearer, which rolls the grass over and spreads it evenly, instead of scraping over the ground and leaving it in bunches that require to be spread by hand.

Connecting Rod Always in Line.

Whatever the position of the Finger-Bar, the Connecting-Rod is always in the *same line*, and never binds the cutters, as with the jointed-bar Machines. The Driving Head contains four boxes, thus doing away with the continual expense of renewing boxes, as with other Machines. The boxes are also set at different distances from the center, to give longer or shorter stroke, according to the work to be done, and the Driving Head acts as a Balance Wheel to equalize the motion.

"Clogging" Prevented.

The sections are fastened to the cutter-bar back with *Patent Projecting Rivet Heads*, which play through slots in the guards, *effectually clearing the machine at every stroke*, so that it *cannot be clogged* in any kind of grass, be the same wet or dry; thus enabling us to use the closed or the open guard.

Shipping Lever.

A Lever is attached in a convenient position for the driver to throw the cutters out of and into gear at pleasure, while the Machine is in motion.

Simple Cearing.

The Gearing is *very simple*, and the speed so regulated that it does not require a fast walking team to operate the Machine. Oxen are frequently used to good advantage. All the Gear Wheels are guarded, so that grass and dirt cannot get in to clog them.

The Raker's Seat.

The Raker's seat is very easy, and his position the most convenient possible for raking off the grain. By a natural and easy quarter-turn sweep of the arms, he delivers the grain at the side, out of the way of the machine on its next round. This position is secured by patent.

Simplicity of Construction, Strength, and Durability

Are attained in the highest degree by the ingenious and simple combination of all parts of the machine.

EXTRACT FROM THE OFFICIAL REPORT OF THE FIELD TRIAL AT ROCHESTER, MINN., AUGUST, 1867—UNDER THE AUSPICES OF THE MINNESOTA STATE AGRICULTURAL SOCIETY; THE KIRBY AWARDED TWO FIRST PRIZE SILVER MEDALS, ONE AS A COMBINED SELF-RAKER, AND ONE AS A COMBINED SELF AND HAND RAKER, EITHER AS DESIRED.

On the morning of the 20th of August, 1867, all parties being in readiness, Class 2 Machines, after drawing for their respective lots, were put in operation. The subject of some system by which to create a basis upon which the awards could be fairly made, had been well considered by the committee before coming to trial, and, after a free interchange of opinion among them, it was decided that, where practicable, four machines should be started at once, each member of the committee following each machine, and taking his own notes, changing from one machine to another, so that each committeeman would actually note his own ideas of the practical working of each machine upon each point laid down in published list of instructions; and at the close of the trial that machine having the greatest advantage in those points, as shown by a comparison of notes, should receive the first premium, and so on.

Col. Geo. Healy, of Rochester, D. Cheatham, of Winona, and Thomas Brooke, Esq., were appointed a committee to note the actual time consumed by each machine in cutting its allotted acre.

Every machine while in motion was explained by the members of the committee, notes being taken of every circumstance seeming necessary to aid in arriving at a just conclusion. The lands being finished, the third class was then taken up, the description given of the manner of the proceeding thus far and plan preserved. The first will answer substantially for the next, on which the 4th, 5th, and 6th classes were tested in the same quantity of grain. Thursday, the 22d, the Dynamometer test was made; the instrument used was "Gibbs' Elliptical Dynamometer," an instrument that has been repeatedly used at other important trials for testing draught, and seemingly as perfect in its action, movement and vibration as any instrument of like construction can well be.

The following premiums were awarded in classes 4 and 6½: Class 4.—Combined Reapers and Mowers, Hand or Self-Rake. 1st premium, Kirby; 2d premium, J. H. Manny. Class 6½.—Self-Rakers. 1st premium, Kirby; 2d premium, John H. Manny.

THE CHAMPAIGN TRIAL.

The Agricultural Editor of the *Gazette and Union*, published at Champaign, Ill., in his comments on the great Reaping Trial, says:

"The Kirby started first, and by its smooth cut, ease of draught, and fine motion, attracted the attention of all present. Wood's came next, and did well, the machine being nearly the same as the one tried yesterday. There seems not to be much if any difference in its work. The Auburn came next, did

smooth work; but not having a roller or wheel at the outer end of the cutter-bar, is liable to run into obstructions that others would pass over. Champion, No. 2, came last. Its work was nicely done.

The Kirby did not stop the first round, Wood's clogged once, Auburn three times, and Champion twice. After testing the machines by stopping and starting, backing, etc., the dynamometer was attached; the same team drawing each machine, one of the committee riding, and the driver walking; this was to keep the driver from helping to draw the machine by the lines.

Kirby, cut 4 ft. 9 in., 175 lbs., in timothy; Wood's, cut 4 ft., 160 lbs., in timothy; Auburn, cut 4 ft. 9 in., 175 lbs., in timothy; Champion, cut 4 ft. 10 in., 200 lbs., in timothy.

It may be proper to state that all claimed that they could do better under more favorable circumstances, though what constituted such we were not informed.

The machines were taken from the University Farm, to that of Mr. Ells, a mile south of town, and there tried in ripe wheat, badly tangled and down. The Kirby did the best work, and it was admitted by some of the other agents before the trial that they were beaten if they had to cut *that* wheat. The Kirby cut first around, and its draught was tested. The peculiarity of the Kirby's rake consists in its being a part of the reel. It can also be raised and lowered while in motion. It picks up the down and tangled grain better than can be done by hand, and leaves it in good condition for binding. The demand for these machines this year has been such that the manufacturer could not supply enough of them. The general agent assured us that all were sold June 1st. As an indication of their successful work in this trial, it may be proper to state that the agents here sold two machines before leaving the ground, those being all that Mr. Ransom, general agent, could find in his territory unsold.

The Auburn Harvester is something after the Kirby pattern, its rake also being part of the reel. It raked well in down grain. The motion is given the rake by chains running around pulleys, which, in our opinion, cannot be very durable.

The Wood's rake has a motion different from the others, being attached to an endless chain that works in the platform. In good grain this rake leaves the gavels in a very small compass ready for binding, but in the grain at the trial did not do as good work as the Kirby, the straw rising above the rake and scattering some.

The Champion, as a hand-rake, did well. The dropper did not work to perfection in the wheat, but did better in oats that were heavy enough to draw off. The machines were all tested in oats, all doing well. In our opinion the Wood's bundles were the most compact, Kirby next, Auburn last.

The draught of the machine in wheat: Kirby cut 5 ft., 250 pounds; Wood's cut 5 ft. 8 in., 250 pounds; Auburn cut 5 ft., 250 pounds; Champion 5 ft. 4 in., 250, Hand-Rake (Draft on Dropper not tried).

The committee, after canvassing all the points, decided the Kirby to be entitled to the award of No. 1.

JANUARY.

MOON'S PHASES.

	D.	H.	M.
Last Quarter.....	5	1	38 M.
New Moon.....	12	2	9 A.
First Quarter.....	20	7	42 A.
Full Moon.....	27	8	46 A.

DAYS OF THE MONTH.	DAYS OF THE WEEK.	CALENDAR			CALENDAR		
		For Boston, New York State, New England, Wisconsin, Michigan, Iowa, Oregon, and the Dominion.			For New York City, New Jersey, Penn., Connecticut, Ohio, Indiana, Illinois, Nebraska, and Utah.		
		Sun rises. H. M.	Sun sets. H. M.	Moon rises. H. M.	Sun rises. H. M.	Sun sets. H. M.	Moon rises. H. M.
1	Fri.	7 30	4 39	8 34	7 25	4 43	8 37
2	Sat.	7 30	4 40	9 46	7 25	4 44	9 48
3	Sun.	7 30	4 41	10 57	7 25	4 45	10 58
4	Mon.	7 30	4 42	morn	7 25	4 46	morn
5	Tue.	7 30	4 43	0 8	7 25	4 47	0 6
6	Wed.	7 30	4 45	1 14	7 25	4 48	1 13
7	Thu.	7 29	4 44	2 20	7 25	4 49	2 18
8	Fri.	7 29	4 45	3 24	7 24	4 50	3 21
9	Sat.	7 29	4 46	4 26	7 24	4 51	4 22
10	Sun.	7 29	4 48	5 25	7 24	4 52	5 21
11	Mon.	7 29	4 49	6 20	7 24	4 53	6 15
12	Tue.	7 28	4 50	sets	7 24	4 54	sets
13	Wed.	7 28	4 51	5 54	7 23	4 55	5 58
14	Thu.	7 27	4 52	6 50	7 23	4 56	6 53
15	Fri.	7 27	4 53	7 47	7 22	4 57	7 50
16	Sat.	7 26	4 55	8 45	7 22	4 58	8 47
17	Sun.	7 26	4 56	9 43	7 21	5 0	9 44
18	Mon.	7 25	4 57	10 41	7 21	5 1	10 41
19	Tue.	7 25	4 58	11 40	7 20	5 2	11 39
20	Wed.	7 24	4 59	morn	7 20	5 3	morn
21	Thu.	7 24	5 1	0 39	7 19	5 4	0 37
22	Fri.	7 23	5 2	1 41	7 19	5 6	1 38
23	Sat.	7 22	5 3	2 45	7 18	5 7	2 42
24	Sun.	7 21	5 4	3 49	7 17	5 8	3 45
25	Mon.	7 21	5 6	4 53	7 17	5 9	4 49
26	Tue.	7 20	5 7	5 54	7 16	5 10	5 49
27	Wed.	7 19	5 8	rises	7 15	5 11	rises
28	Thu.	7 18	5 9	6 10	7 14	5 12	6 13
29	Fri.	7 17	5 11	7 25	7 13	5 14	7 27
30	Sat.	7 16	5 12	8 40	7 12	5 15	8 41
31	Sun.	7 15	5 14	9 53	7 11	5 16	9 53

The Kirby was always a good machine, but by adding the new Finger-Bar with Open Steel Guards, the Castor Grain Wheel, and the Burdick Reel Self-Rake, we have placed the Kirby ahead of all competition.

FEBRUARY.

MOON'S PHASES.

	D.	H.	M.
Last Quarter.....	3	0	32 A.
New Moon.....	11	9	10 M.
First Quarter.....	19	0	22 A.
Full Moon.....	26	7	20 M.

DAYS OF THE MONTH.	DAYS OF THE WEEK.	CALENDAR			CALENDAR		
		For Boston, New York State, New England, Wisconsin, Michigan, Iowa, Oregon, and the Dominion.			For New York City, New Jersey, Penn., Connecticut, Ohio, Indiana, Illinois, Nebraska, and Utah.		
		Sun rises. H. M.	Sun sets. H. M.	Moon rises. H. M.	Sun rises. H. M.	Sun sets. H. M.	Moon rises. H. M.
1	Mon.	7 14	5 15	1 3	7 10	5 18	11 2
2	Tue.	7 13	5 16	morn	7 10	5 19	morn
3	Wed.	7 12	5 17	0 11	7 9	5 20	0 9
4	Thu.	7 11	5 19	1 17	7 8	5 21	1 14
5	Fri.	7 9	5 20	2 20	7 7	5 23	2 16
6	Sat.	7 8	5 21	3 20	7 6	5 24	3 16
7	Sun.	7 7	5 23	4 16	7 4	5 25	4 11
8	Mon.	7 6	5 24	5 7	7 3	5 26	5 2
9	Tue.	7 5	5 25	5 52	7 2	5 28	5 48
10	Wed.	7 3	5 26	sets	7 1	5 29	sets
11	Thu.	7 2	5 28	5 40	7 0	5 30	5 43
12	Fri.	7 0	5 29	6 38	6 58	5 31	6 40
13	Sat.	6 59	5 30	7 36	6 57	5 32	7 37
14	Sun.	6 58	5 32	8 34	6 56	5 33	8 34
15	Mon.	6 57	5 33	9 32	6 54	5 35	9 31
16	Tue.	6 55	5 34	10 30	6 53	5 36	10 29
17	Wed.	6 54	5 35	11 30	6 52	5 37	11 28
18	Thu.	6 52	5 37	morn	6 51	5 38	morn
19	Fri.	6 51	5 38	0 31	6 49	5 40	0 28
20	Sat.	6 49	5 39	1 33	6 48	5 41	1 29
21	Sun.	6 48	5 40	2 35	6 46	5 42	2 31
22	Mon.	6 46	5 42	3 36	6 45	5 43	3 31
23	Tue.	6 45	5 43	4 33	6 43	5 45	4 29
24	Wed.	6 43	5 44	5 26	6 42	5 46	5 22
25	Thu.	6 42	5 45	6 12	6 40	5 47	6 9
26	Fri.	6 40	5 47	rises	6 39	5 48	rises
27	Sat.	6 39	5 48	7 28	6 38	5 49	7 29
28	Sun.	6 37	5 49	8 42	6 36	5 50	8 41

ILLINOIS STATE FAIR, 1867.

FIRST AND HIGHEST COMMENDATION!

QUINCY, Ill., October 5, 1867.

"The Kirby" Self-Raking Reaper and Mower, at the Fifteenth Annual Exhibition of the Illinois State Agricultural Society, was marked by the Awarding Committee "Highest Commendation;" no awards of premiums being given to any machines for mowing or reaping.

(Signed)

A. B. McCONNELL, President.

H. D. EMERY, Sup't Agricultural Department.

MARCH.

MOON'S PHASES.

	D.	H.	M.
Last Quarter,.....	5	0	59 M.
New Moon,.....	13	4	2 M.
First Quarter,.....	21	1	10 M.
Full Moon,.....	27	4	48 A.

DAYS OF THE MONTH.	DAYS OF THE WEEK.	CALENDAR			CALENDAR		
		For Boston, New York State, New England, Wisconsin, Michigan, Iowa, Oregon, and the Dominion.			For New York City, New Jersey, Penn., Connecticut, Ohio, Indiana, Illinois, Nebraska, and Utah.		
		Sun rises.	Sun sets.	Moon rises.	Sun rises.	Sun sets.	Moon rises.
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1 Mon.		6 36	5 51	9 54	6 35	5 51	9 52
2 Tue.		6 34	5 52	11 4	6 33	5 52	11 1
3 Wed.		6 32	5 53	morn	6 31	5 53	morn
4 Thu.		6 31	5 54	0 11	6 30	5 54	0 8
5 Fri.		6 29	5 55	1 14	6 28	5 55	1 10
6 Sat.		6 27	5 56	2 11	6 27	5 57	2 7
7 Sun.		6 26	5 58	3 4	6 25	5 58	2 59
8 Mon.		6 24	5 59	3 51	6 24	5 59	3 47
9 Tue.		6 22	6 0	4 32	6 22	6 0	4 28
10 Wed.		6 21	6 1	5 8	6 21	6 1	5 5
11 Thu.		6 19	6 2	5 41	6 19	6 2	5 38
12 Fri.		6 17	6 3	sets	6 17	6 3	sets
13 Sat.		6 15	6 4	6 29	6 15	6 4	6 30
14 Sun.		6 14	6 6	7 26	6 14	6 5	7 26
15 Mon.		6 12	6 7	8 25	6 12	6 6	8 24
16 Tue.		6 10	6 8	9 24	6 11	6 7	9 22
17 Wed.		6 9	6 9	10 24	6 9	6 8	10 21
18 Thu.		6 7	6 10	11 25	6 8	6 10	11 21
19 Fri.		6 5	6 11	morn	6 6	6 11	morn
20 Sat.		6 3	6 12	0 26	6 4	6 12	0 22
21 Sun.		6 2	6 14	1 25	6 2	6 13	1 20
22 Mon.		6 0	6 15	2 22	6 1	6 14	2 17
23 Tue.		5 58	6 16	3 14	5 59	6 15	3 10
24 Wed.		5 56	6 17	4 1	5 58	6 16	3 57
25 Thu.		5 55	6 18	4 43	5 56	6 17	4 40
26 Fri.		5 53	6 19	5 22	5 54	6 18	5 20
27 Sat.		5 51	6 20	rises	5 52	6 19	rises
28 Sun.		5 49	6 21	7 29	5 51	6 20	7 28
29 Mon.		5 48	6 23	8 42	5 49	6 21	8 40
30 Tue.		5 46	6 24	9 53	5 48	6 22	9 50
31 Wed.		5 44	6 25	11 0	5 46	6 23	10 56

Now is the time to call on the Agent of the Kirby and examine a machine. By so doing you may be saved from the error of buying an inferior machine.

APRIL.

MOON'S PHASES.

	D.	H.	M.
Last Quarter,.....	3	4	4 A.
New Moon,.....	11	9	3 A.
First Quarter,.....	19	10	22 M.
Full Moon,.....	26	1	37 M.

DAYS OF THE MONTH.	DAYS OF THE WEEK.	CALENDAR			CALENDAR		
		For Boston, New York State, New England, Wisconsin, Michigan, Iowa, Oregon, and the Dominion.			For New York City, New Jersey, Penn., Connecticut, Ohio, Indiana, Illinois, Nebraska, and Utah.		
		Sun rises.	Sun sets.	Moon rises.	Sun rises.	Sun sets.	Moon rises.
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1 Thu.		5 42	6 26	morn	5 44	6 24	11 58
2 Fri.		5 41	6 27	0 2	5 43	6 25	morn
3 Sat.		5 39	6 28	0 58	5 41	6 26	0 53
4 Sun.		5 37	6 29	1 48	5 39	6 27	1 43
5 Mon.		5 35	6 30	2 32	5 38	6 28	2 28
6 Tue.		5 34	6 32	3 10	5 36	6 29	3 6
7 Wed.		5 32	6 33	3 44	5 35	6 31	3 41
8 Thu.		5 30	6 34	4 14	5 33	6 32	4 12
9 Fri.		5 29	6 35	4 41	5 31	6 33	4 40
10 Sat.		5 27	6 36	5 8	5 29	6 34	5 7
11 Sun.		5 25	6 37	sets	5 28	6 35	sets
12 Mon.		5 24	6 38	7 18	5 26	6 36	7 16
13 Tue.		5 22	6 39	8 18	5 25	6 37	8 15
14 Wed.		5 21	6 40	9 19	5 23	6 38	9 16
15 Thu.		5 19	6 42	10 20	5 22	6 39	10 16
16 Fri.		5 17	6 43	11 20	5 20	6 40	11 15
17 Sat.		5 16	6 44	morn	5 19	6 41	morn
18 Sun.		5 14	6 45	0 17	5 17	6 42	0 12
19 Mon.		5 13	6 46	1 10	5 16	6 43	1 5
20 Tue.		5 11	6 47	1 58	5 14	6 44	1 54
21 Wed.		5 10	6 48	2 41	5 13	6 45	2 38
22 Thu.		5 8	6 49	3 19	5 11	6 46	3 17
23 Fri.		5 7	6 50	3 54	5 10	6 47	3 53
24 Sat.		5 5	6 52	4 27	5 8	6 48	4 27
25 Sun.		5 4	6 53	5 1	5 7	6 49	5 2
26 Mon.		5 2	6 54	rises	5 5	6 50	rises
27 Tue.		5 1	6 55	8 39	5 4	6 51	8 35
28 Wed.		4 59	6 56	9 46	5 3	6 52	9 42
29 Thu.		4 58	6 57	10 47	5 2	6 53	10 42
30 Fri.		4 56	6 58	11 41	5 0	6 54	11 36

THE KIRBY WAS AWARDED THE FIRST PREMIUM,
A DIPLOMA,

AS THE BEST COMBINED SELF-RAKING REAPER AND
MOWER OVER ALL OTHER COMPETITORS,

AT THE

MISSOURI STATE FAIR OF 1866.

MAY.

MOON'S PHASES.

	D.	H.	M.
Last Quarter,.....	3	8	56 M.
New Moon,.....	11	11	23 M.
First Quarter,.....	18	4	45 A.
Full Moon,.....	25	10	39 M.

DAYS OF THE MONTH.	DAYS OF THE WEEK.	CALENDAR			CALENDAR		
		For Boston, New York State, New England, Wisconsin, Michigan, Iowa, Oregon, and the Dominion.			For New York City, New Jersey, Penn., Connecticut, Ohio, Indiana, Illinois, Nebraska, and Utah.		
		Sun rises.	Sun sets.	Moon rises.	Sun rises.	Sun sets.	Moon rises.
H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1 Sat.	4 55	6 59	morn	4 59	6 55	morn	
2 Sun.	4 54	7 0	0 28	4 58	6 57	0 24	
3 Mon.	4 52	7 1	1 9	4 57	6 58	1 5	
4 Tue.	4 51	7 3	1 45	4 55	6 59	1 42	
5 Wed.	4 50	7 4	2 16	4 54	7 0	2 13	
6 Thu.	4 49	7 5	2 44	4 53	7 1	2 42	
7 Fri.	4 47	7 6	3 11	4 52	7 2	3 10	
8 Sat.	4 46	7 7	3 37	4 50	7 3	3 37	
9 Sun.	4 45	7 8	4 3	4 49	7 4	4 4	
10 Mon.	4 44	7 9	4 32	4 48	7 5	4 34	
11 Tue.	4 43	7 10	sets	4 47	7 6	sets	
12 Wed.	4 41	7 11	8 14	4 46	7 7	8 10	
13 Thu.	4 40	7 12	9 15	4 45	7 8	9 11	
14 Fri.	4 39	7 13	10 14	4 44	7 9	10 9	
15 Sat.	4 38	7 14	11 8	4 43	7 10	11 3	
16 Sun.	4 37	7 15	11 57	4 42	7 11	11 53	
17 Mon.	4 36	7 16	morn	4 41	7 12	morn	
18 Tue.	4 35	7 17	0 40	4 40	7 13	0 36	
19 Wed.	4 34	7 18	1 19	4 40	7 13	1 16	
20 Thu.	4 34	7 19	1 55	4 39	7 14	1 53	
21 Fri.	4 33	7 20	2 28	4 38	7 15	2 27	
22 Sat.	4 32	7 21	3 0	4 37	7 16	3 1	
23 Sun.	4 31	7 22	3 33	4 36	7 17	3 35	
24 Mon.	4 30	7 23	4 7	4 35	7 18	4 10	
25 Tue.	4 29	7 24	rises	4 35	7 19	rises	
26 Wed.	4 28	7 25	8 31	4 34	7 20	8 26	
27 Thu.	4 28	7 26	9 30	4 34	7 21	9 25	
28 Fri.	4 28	7 27	10 21	4 33	7 21	10 16	
29 Sat.	4 27	7 28	11 6	4 33	7 22	11 2	
30 Sun.	4 26	7 28	11 45	4 32	7 23	11 41	
31 Mon.	4 26	7 29	morn	4 32	7 24	morn	

The Kirby is noted for its Strength, Durability, Simplicity, and Ease of Draft.

JUNE.

MOON'S PHASES.

	D.	H.	M.
Last Quarter,.....	2	2	37 M.
New Moon,.....	9	11	8 A.
First Quarter,.....	16	9	31 A.
Full Moon,.....	23	8	54 A.

DAYS OF THE MONTH.	DAYS OF THE WEEK.	CALENDAR			CALENDAR		
		For Boston, New York State, New England, Wisconsin, Michigan, Iowa, Oregon, and the Dominion.			For New York City, New Jersey, Penn., Connecticut, Ohio, Indiana, Illinois, Nebraska, and Utah.		
		Sun rises.	Sun sets.	Moon rises.	Sun rises.	Sun sets.	Moon rises.
H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1 Tue.	4 25	7 30	0 18	4 31	7 24	0 15	
2 Wed.	4 25	7 31	0 47	4 30	7 25	0 45	
3 Thu.	4 25	7 31	1 13	4 30	7 26	1 12	
4 Fri.	4 24	7 32	1 39	4 30	7 27	1 39	
5 Sat.	4 24	7 33	2 5	4 29	7 27	2 6	
6 Sun.	4 24	7 33	2 32	4 29	7 28	2 34	
7 Mon.	4 23	7 34	3 2	4 29	7 28	3 4	
8 Tue.	4 23	7 35	3 35	4 29	7 29	3 38	
9 Wed.	4 23	7 35	sets	4 28	7 30	sets	
10 Thu.	4 22	7 36	8 6	4 28	7 30	8 1	
11 Fri.	4 22	7 36	9 4	4 28	7 31	8 59	
12 Sat.	4 22	7 37	9 56	4 28	7 31	9 52	
13 Sun.	4 22	7 37	10 42	4 28	7 32	10 38	
14 Mon.	4 22	7 38	11 22	4 28	7 32	11 19	
15 Tue.	4 22	7 38	11 58	4 28	7 32	11 56	
16 Wed.	4 22	7 38	morn	4 28	7 33	morn	
17 Thu.	4 22	7 39	0 31	4 28	7 33	0 30	
18 Fri.	4 22	7 39	1 3	4 28	7 33	1 3	
19 Sat.	4 23	7 39	1 35	4 28	7 34	1 36	
20 Sun.	4 23	7 40	2 8	4 28	7 34	2 10	
21 Mon.	4 23	7 40	2 44	4 29	7 34	2 47	
22 Tue.	4 23	7 40	3 24	4 29	7 34	3 28	
23 Wed.	4 23	7 40	4 9	4 29	7 35	4 14	
24 Thu.	4 24	7 40	rises	4 29	7 35	rises	
25 Fri.	4 24	7 40	9 0	4 30	7 35	8 55	
26 Sat.	4 24	7 40	9 42	4 30	7 36	9 38	
27 Sun.	4 25	7 40	10 17	4 30	7 36	10 14	
28 Mon.	4 25	7 40	10 48	4 31	7 37	10 45	
29 Tue.	4 26	7 40	11 16	4 31	7 37	11 14	
30 Wed.	4 26	7 40	11 42	4 32	7 37	11 41	

AT THE MINNESOTA STATE FAIR of 1866

THE KIRBY

WAS AWARDED

THE FIRST PREMIUM MEDAL.

JULY.

MOON'S PHASES.

	D.	H.	M.
Last Quarter,.....	1	8	2 A.
New Moon,.....	9	8	54 M.
First Quarter,.....	16	2	4 M.
Full Moon,.....	23	9	10 M.
Last Quarter,.....	31	0	22 A.

CALENDAR

For Boston, New York State, New England, Wisconsin, Michigan, Iowa, Oregon, and the Dominion.

CALENDAR

For New York City, New Jersey, Penn., Connecticut, Ohio, Indiana, Illinois, Nebraska, and Utah.

DAYS OF THE MONTH.	DAYS OF THE WEEK.	Sun rises.	Sun sets.	Moon rises.	Sun rises.	Sun sets.	Moon rises.
H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	Thu.	4 27	7 40	morn	4 32	7 35	morn
2	Fri.	4 27	7 40	0 8	4 33	7 35	0 8
3	Sat.	4 28	7 40	0 35	4 33	7 34	3 36
4	Sun.	4 29	7 40	1 2	4 34	7 34	1 4
5	Mon.	4 29	7 39	1 32	4 34	7 34	1 35
6	Tue.	4 29	7 39	2 6	4 35	7 34	2 10
7	Wed.	4 30	7 39	2 47	4 36	7 33	2 51
8	Thu.	4 31	7 38	3 37	4 37	7 33	3 42
9	Fri.	4 31	7 38	sets	4 37	7 33	sets
10	Sat.	4 32	7 38	8 38	4 38	7 32	8 34
11	Sun.	4 33	7 37	9 21	4 38	7 32	9 18
12	Mon.	4 34	7 37	9 59	4 39	7 32	9 57
13	Tue.	4 35	7 36	10 34	4 40	7 31	10 33
14	Wed.	4 35	7 35	11 6	4 40	7 31	11 6
15	Thu.	4 36	7 35	11 37	4 41	7 30	11 38
16	Fri.	4 37	7 34	morn	4 42	7 29	morn
17	Sat.	4 38	7 33	0 9	4 43	7 29	0 11
18	Sun.	4 39	7 33	0 44	4 43	7 28	0 47
19	Mon.	4 39	7 32	1 23	4 44	7 27	1 27
20	Tue.	4 40	7 31	2 5	4 45	7 27	2 9
21	Wed.	4 41	7 30	2 51	4 46	7 26	2 56
22	Thu.	4 42	7 29	3 44	4 47	7 25	3 49
23	Fri.	4 43	7 29	rises	4 48	7 24	rises
24	Sat.	4 44	7 28	8 16	4 48	7 23	8 12
25	Sun.	4 45	7 27	8 49	4 49	7 22	8 46
26	Mon.	4 46	7 26	9 19	4 50	7 22	9 17
27	Tue.	4 47	7 25	9 46	4 51	7 21	9 45
28	Wed.	4 48	7 24	10 11	4 52	7 20	10 11
29	Thu.	4 49	7 23	10 36	4 53	7 19	10 37
30	Fri.	4 50	7 22	11 2	4 54	7 18	11 4
31	Sat.	4 51	7 20	11 31	4 55	7 17	11 33

The Kirby is a perfect Combined Machine, Mower, Hand Raking Reaper, and Self-Raking Reaper.
It Mows well, Reaps well, and Rakes like a Churn!

AUGUST.

MOON'S PHASES.

	D.	H.	M.
New Moon,.....	7	5	24 A.
First Quarter,.....	14	7	56 M.
Full Moon,.....	21	11	40 A.
Last Quarter,.....	30	3	14 M.

CALENDAR

For Boston, New York State, New England, Wisconsin, Michigan, Iowa, Oregon, and the Dominion.

CALENDAR

For New York City, New Jersey, Penn., Connecticut, Ohio, Indiana, Illinois, Nebraska, and Utah.

DAYS OF THE MONTH.	DAYS OF THE WEEK.	Sun rises.	Sun sets.	Moon rises.	Sun rises.	Sun sets.	Moon rises.
H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	Sun.	4 52	7 19	morn	4 56	7 16	morn
2	Mon.	4 53	7 18	0 3	4 57	7 15	0 6
3	Tue.	4 54	7 17	0 40	4 58	7 14	0 44
4	Wed.	4 55	7 16	1 24	4 59	7 12	1 29
5	Thu.	4 56	7 14	2 17	5 0	7 11	2 22
6	Fri.	4 57	7 13	3 18	5 1	7 10	3 23
7	Sat.	4 58	7 12	sets	5 2	7 9	sets
8	Sun.	4 59	7 11	7 56	5 3	7 8	7 53
9	Mon.	5 1	7 9	8 32	5 4	7 6	8 30
10	Tue.	5 2	7 8	9 7	5 5	7 5	9 6
11	Wed.	5 3	7 7	9 40	5 5	7 4	9 41
12	Thu.	5 4	7 5	10 13	5 6	7 2	10 15
13	Fri.	5 5	7 4	10 47	5 7	7 1	10 50
14	Sat.	5 6	7 2	11 24	5 8	7 0	11 28
15	Sun.	5 7	7 1	morn	5 9	6 58	morn
16	Mon.	5 8	6 59	0 5	5 10	6 57	0 9
17	Tue.	5 9	6 58	0 49	5 11	6 55	0 54
18	Wed.	5 10	6 56	1 38	5 12	6 54	1 43
19	Thu.	5 11	6 55	2 34	5 13	6 53	2 39
20	Fri.	5 12	6 53	3 32	5 14	6 51	3 36
21	Sat.	5 13	6 52	4 31	5 15	6 50	4 34
22	Sun.	5 14	6 50	rises	5 16	6 48	rises
23	Mon.	5 15	6 49	7 49	5 17	6 47	7 48
24	Tue.	5 16	6 47	8 14	5 18	6 45	8 13
25	Wed.	5 17	6 46	8 39	5 19	6 44	8 39
26	Thu.	5 18	6 44	9 5	5 20	6 42	9 6
27	Fri.	5 20	6 42	9 32	5 21	6 41	9 34
28	Sat.	5 21	6 41	10 2	5 22	6 39	10 5
29	Sun.	5 22	6 39	10 35	5 23	6 37	10 39
30	Mon.	5 23	6 37	11 15	5 24	6 36	11 19
31	Tue.	5 24	6 35	morn	5 25	6 34	morn

AT THE SECOND GREAT NATIONAL TRIAL OF HARVESTING MACHINERY

Held at Auburn, N. Y., in July, 1866,

THE KIRBY

WON THREE FIRST PRIZE GOLD MEDALS.

Over Fifty Machines being in the Trial!

SEPTEMBER.

MOON'S PHASES.

	D.	H.	M.
New Moon.....	6	1	23 M.
First Quarter.....	12	4	39 A.
Full Moon.....	20	3	57 A.
Last Quarter.....	28	4	26 A.

OCTOBER.

MOON'S PHASES.

	D.	H.	M.
New Moon.....	5	9	35 M.
First Quarter.....	12	5	18 M.
Full Moon.....	20	9	13 M.
Last Quarter.....	28	3	50 M.

Consider only its qualities as a Mower
and Reaper, and discard all two-wheeled contrivances.

DAYS OF THE MONTH.	DAYS OF THE WEEK.	CALENDAR			CALENDAR		
		For Boston, New York State, New England, Wisconsin, Michigan, Iowa, Oregon, and the Dominion.			For New York City, New Jersey, Penn., Connecticut, Ohio, Indiana, Illinois, Nebraska, and Utah.		
		Sun rises. H. M.	Sun sets. H. M.	Moon rises. H. M.	Sun rises. H. M.	Sun sets. H. M.	Moon rises. H. M.
1	Wed.	5 25	6 34	0 3	5 26	6 32	0 8
2	Thu.	5 26	6 32	0 59	5 27	6 31	1 4
3	Fri.	5 27	6 30	2 2	5 28	6 29	2 6
4	Sat.	5 28	6 29	3 13	5 29	6 28	3 17
5	Sun.	5 29	6 27	sets	5 30	6 27	sets
6	Mon.	5 30	6 25	7 3	5 31	6 25	7 2
7	Tue.	5 31	6 24	7 36	5 32	6 23	7 36
8	Wed.	5 32	6 22	8 10	5 33	6 21	8 11
9	Thu.	5 34	6 20	8 45	5 34	6 19	8 47
10	Fri.	5 35	6 18	9 23	5 35	6 18	9 26
11	Sat.	5 36	6 17	10 3	5 36	6 16	10 7
12	Sun.	5 37	6 15	10 46	5 37	6 15	10 51
13	Mon.	5 38	6 13	11 35	5 38	6 14	11 40
14	Tue.	5 39	6 11	morn	5 39	6 11	morn
15	Wed.	5 40	6 10	0 29	5 40	6 9	0 34
16	Thu.	5 41	6 8	1 26	5 41	6 8	1 30
17	Fri.	5 42	6 6	2 34	5 42	6 6	2 28
18	Sat.	5 43	6 4	3 23	5 43	6 5	3 26
19	Sun.	5 44	6 2	4 22	5 44	6 3	4 24
20	Mon.	5 45	6 1	rises	5 45	6 1	rises
21	Tue.	5 46	5 59	6 44	5 46	5 59	6 44
22	Wed.	5 47	5 57	7 9	5 47	5 58	7 10
23	Thu.	5 48	5 55	7 35	5 48	5 56	7 37
24	Fri.	5 49	5 54	8 4	5 49	5 55	8 7
25	Sat.	5 50	5 52	8 36	5 50	5 53	8 40
26	Sun.	5 51	5 50	9 13	5 51	5 51	9 17
27	Mon.	5 53	5 48	9 56	5 52	5 49	10 1
28	Tue.	5 54	5 47	10 47	5 53	5 48	10 52
29	Wed.	5 55	5 45	11 45	5 54	5 46	11 50
30	Thu.	5 56	5 43	morn	5 55	5 44	morn

DAYS OF THE MONTH.	DAYS OF THE WEEK.	CALENDAR			CALENDAR		
		For Boston, New York State, New England, Wisconsin, Michigan, Iowa, Oregon, and the Dominion.			For New York City, New Jersey, Penn., Connecticut, Ohio, Indiana, Illinois, Nebraska, and Utah.		
		Sun rises. H. M.	Sun sets. H. M.	Moon rises. H. M.	Sun rises. H. M.	Sun sets. H. M.	Moon rises. H. M.
1	Fri.	5 57	5 41	0 50	5 56	5 42	0 54
2	Sat.	5 58	5 40	2 0	5 57	5 41	2 3
3	Sun.	5 59	5 38	3 14	5 58	5 39	3 16
4	Mon.	6 0	5 36	4 31	5 59	5 38	4 32
5	Tue.	6 1	5 35	sets	6 0	5 36	sets
6	Wed.	6 2	5 33	6 38	6 1	5 35	6 40
7	Thu.	6 4	5 31	7 15	6 2	5 33	7 18
8	Fri.	6 5	5 29	7 55	6 3	5 31	7 59
9	Sat.	6 6	5 28	8 39	6 4	5 29	8 43
10	Sun.	6 7	5 26	9 28	6 5	5 28	9 33
11	Mon.	6 9	5 25	10 22	6 6	5 26	10 27
12	Tue.	6 10	5 23	11 19	6 7	5 25	11 24
13	Wed.	6 11	5 21	morn	6 8	5 23	morn
14	Thu.	6 12	5 20	0 17	6 10	5 22	0 21
15	Fri.	6 13	5 18	1 16	6 11	5 20	1 19
16	Sat.	6 14	5 17	2 15	6 12	5 19	2 17
17	Sun.	6 16	5 15	3 13	6 13	5 17	3 15
18	Mon.	6 17	5 13	4 11	6 14	5 16	4 12
19	Tue.	6 18	5 12	5 9	6 15	5 14	5 9
20	Wed.	6 19	5 10	rises	6 16	5 13	rises
21	Thu.	6 20	5 9	6 6	6 17	5 11	6 9
22	Fri.	6 21	5 7	6 37	6 18	5 10	6 40
23	Sat.	6 22	5 6	7 12	6 19	5 9	7 16
24	Sun.	6 24	5 4	7 52	6 20	5 7	7 57
25	Mon.	6 25	5 3	8 40	6 22	5 6	8 45
26	Tue.	6 26	5 1	9 35	6 23	5 5	9 40
27	Wed.	6 27	5 0	10 36	6 24	5 4	10 40
28	Thu.	6 29	4 59	11 42	6 25	5 2	11 46
29	Fri.	6 30	4 57	morn	6 26	5 0	morn
30	Sat.	6 31	4 56	0 52	6 27	4 59	0 55
31	Sun.	6 32	4 55	2 5	6 28	4 58	2 7

FARMERS!

CALL ON OUR AGENT AND SEE

THE KIRBY.

You can't help being pleased with the simplicity of
THE MACHINE AND THE PRECISION, WITH WHICH IT WORKS.

NOVEMBER.

MOON'S PHASES.

	D.	H.	M.
New Moon.....	3	6	51 A.
First Quarter.....	10	10	11 A.
Full Moon.....	19	2	34 M.
Last Quarter.....	26	1	30 A.

DAYS OF THE MONTH.	DAYS OF THE WEEK.	CALENDAR						CALENDAR					
		For Boston, New York State, New England, Wisconsin, Michigan, Iowa, Oregon, and the Dominion.						For New York City, New Jersey, Penn., Connecticut, Ohio, Indiana, Illinois, Nebraska, and Utah.					
		Sun rises.	Sun sets.	Moon rises.	H. M.	H. M.	H. M.	Sun rises.	Sun sets.	Moon rises.	H. M.	H. M.	H. M.
1 Mon.		6 34	4 53	3 20				6 30	4 57	3 21			
2 Tue.		6 35	4 52	4 35				6 31	4 56	4 34			
3 Wed.		6 36	4 51	5 51				6 32	4 55	5 49			
4 Thu.		6 36	4 50	sets				6 33	4 53	sets			
5 Fri.		6 39	4 48	6 27				6 35	4 52	6 31			
6 Sat.		6 40	4 47	7 16				6 36	4 51	7 21			
7 Sun.		6 41	4 46	8 9				6 37	4 50	8 14			
8 Mon.		6 42	4 45	9 6				6 38	4 49	9 11			
9 Tue.		6 44	4 44	10 5				6 39	4 48	10 9			
10 Wed.		6 45	4 43	11 5				6 41	4 47	11 9			
11 Thu.		6 46	4 42	morn				6 42	4 46	morn			
12 Fri.		6 48	4 41	0 5				6 43	4 45	0 8			
13 Sat.		6 49	4 40	1 5				6 44	4 44	1 7			
14 Sun.		6 50	4 39	2 4				6 45	4 43	2 5			
15 Mon.		6 51	4 38	3 1				6 46	4 43	3 1			
16 Tue.		6 53	4 37	3 59				6 48	4 42	3 58			
17 Wed.		6 54	4 36	4 58				6 49	4 41	4 56			
18 Thu.		6 55	4 36	5 57				6 50	4 40	5 54			
19 Fri.		6 56	4 35	rises				6 51	4 40	rises			
20 Sat.		6 57	4 34	5 51				6 52	4 39	5 56			
21 Sun.		6 59	4 33	6 37				6 54	4 38	6 42			
22 Mon.		7 0	4 33	7 30				6 55	4 38	7 35			
23 Tue.		7 1	4 32	8 29				6 56	4 37	8 34			
24 Wed.		7 2	4 32	9 33				6 57	4 37	9 37			
25 Thu.		7 3	4 31	10 41				6 58	4 37	10 44			
26 Fri.		7 4	4 31	11 51				6 59	4 36	11 53			
27 Sat.		7 5	4 30	morn				7 0	4 36	morn			
28 Sun.		7 7	4 30	1 2				7 1	4 35	1 3			
29 Mon.		7 8	4 29	2 14				7 2	4 35	2 14			
30 Tue.		7 9	4 29	3 27				7 3	4 34	3 26			

Farmers, now is the time to order a Kirby Machine. "Stand not upon the order of your ordering, but Order at once."

DECEMBER.

MOON'S PHASES.

	D.	H.	M.
New Moon.....	3	5	57 M.
First Quarter.....	10	6	27 A.
Full Moon.....	18	7	6 A.
Last Quarter.....	25	9	49 A.

DAYS OF THE MONTH.	DAYS OF THE WEEK.	CALENDAR						CALENDAR					
		For Boston, New York State, New England, Wisconsin, Michigan, Iowa, Oregon, and the Dominion.						For New York City, New Jersey, Penn., Connecticut, Ohio, Indiana, Illinois, Nebraska, and Utah.					
		Sun rises.	Sun sets.	Moon rises.	H. M.	H. M.	H. M.	Sun rises.	Sun sets.	Moon rises.	H. M.	H. M.	H. M.
1 Wed.		7 10	4 29	4 41				7 4	4 34	4 39			
2 Thu.		7 11	4 28	5 54				7 5	4 33	5 51			
3 Fri.		7 12	4 28	7 6				7 6	4 33	7 2			
4 Sat.		7 13	4 28	sets				7 7	4 33	sets			
5 Sun.		7 14	4 28	6 49				7 8	4 33	6 54			
6 Mon.		7 15	4 28	7 49				7 9	4 33	7 54			
7 Tue.		7 16	4 28	8 50				7 10	4 33	8 54			
8 Wed.		7 17	4 28	9 51				7 11	4 33	9 54			
9 Thu.		7 18	4 28	10 52				7 12	4 33	10 54			
10 Fri.		7 19	4 28	11 51				7 13	4 33	11 52			
11 Sat.		7 20	4 28	morn				7 14	4 33	morn			
12 Sun.		7 20	4 28	0 49				7 15	4 33	0 50			
13 Mon.		7 21	4 28	1 47				7 15	4 33	1 47			
14 Tue.		7 22	4 28	2 45				7 16	4 34	2 44			
15 Wed.		7 23	4 29	3 45				7 17	4 34	3 43			
16 Thu.		7 23	4 29	4 46				7 18	4 34	4 43			
17 Fri.		7 24	4 29	5 48				7 18	4 34	5 42			
18 Sat.		7 25	4 29	6 49				7 19	4 35	6 44			
19 Sun.		7 25	4 30	rises				7 20	4 35	rises			
20 Mon.		7 26	4 30	6 21				7 20	4 36	6 26			
21 Tue.		7 26	4 31	7 26				7 21	4 36	7 30			
22 Wed.		7 27	4 31	8 33				7 21	4 37	8 37			
23 Thu.		7 27	4 32	9 42				7 22	4 37	9 45			
24 Fri.		7 27	4 32	10 52				7 22	4 38	10 54			
25 Sat.		7 28	4 33	morn				7 22	4 38	morn			
26 Sun.		7 28	4 34	0 3				7 23	4 39	0 3			
27 Mon.		7 29	4 35	1 14				7 23	4 40	1 13			
28 Tue.		7 29	4 35	2 25				7 24	4 40	2 23			
29 Wed.		7 29	4 36	3 36				7 24	4 41	3 33			
30 Thu.		7 29	4 37	4 47				7 24	4 42	4 43			
31 Fri.		7 30	4 38	5 55				7 24	4 42	5 50			

YOUR NEIGHBORS ALL OWN

KIRBY MACHINES,

AND WHY SHOULD YOU BE BEHIND THEM

IN THIS AGE OF ADVANCEMENT.

THE KIRBY AS A MOWER.

This KIRBY HARVESTER is taken apart very much for greater convenience in packing. It must be put together with great care.

1st. Slip on the driving-wheel; then the wooden seat, one foot of the seat-support entering a hole for it in the axle-plate, the other end in the outside stirrup.

2d. Bolt on the pole. For cutting ordinary height, put the back bolt in the third hole from the top; to cut lower, put it in the lower hole; to cut higher, in the upper ones.

3d. Bolt on the finger-bar—taking *great care* that there is nothing under the bar on the frame to prevent the bar coming down closely to its place, and draw the *nuts down very solid*.

4th. Put in the cutter-bar. It passes in and out the guards behind the wheel *when the finger-bar lies on the ground*. Do not take off the wheel to put the cutter-bar in and out. See that it slides easy in the guards; put in the connecting-rod; try turning the gearing and running the cutter-bar by the connecting-rod to see that all is clear.

5th. Put in the lifter-rod and lever, and attach the track-clearer.

6th. Adjust the driver's saddle on the wood seat according to his weight—the object being to balance the weight of the machine by the weight of the driver. As sent from the works they are adjusted right for persons of ordinary weight. For a very light man, the iron which *supports* the seat should be moved forward to give him a little more leverage. For a heavy man, move it back. It is also adjusted by moving the seat forward or backward, by changing the bolt holding it to another hole.

7th. Oil all the bearings—both ends of the connecting-rod, the lifter-wheel, and shaft on which the spur-pinion revolves when not in gear—with good lard oil.

Oil the reel-post under the cam when the reel inclines to slip down.

8th. See that your horses are properly harnessed, and go ahead.

THE KIRBY AS A REAPER.

9th. If your machine is set up as mower; to change to a reaper, take off the lifter-lever, lifter-rod, and track-clearer; put on the platform, reel, and raker's seat. The driver's seat in mowing is bolted to the lever, astride of which the raker sits, with his left foot in the stirrup on the rear of the frame. The driver's seat in reaping is on the tool box. The front end of the raker's seat lever is bolted to the front standard through one of the two lower holes. The platform-wheel is held to its place by a pin with a head like an ox-bow key. Do not use a bolt and nut, as the height cannot be changed without taking off the wheel to get at the nut. The crooked rod is used in reaping only, to raise the grain leading towards the frame of the machine—the front end, B, is attached to the front pole-bolt.

10th. Adjust the height you wish to cut by the pins in the axle-plate and platform wheel-plate. Adjust the platform by the bolt in the head of the pole.

11th. KEEP YOUR KNIVES SHARP. For this purpose a scythe stone will be found useful when grinding is not required. A file is of no use.

DIRECTIONS FOR SETTING UP AND USING THE REEL-RAKE.

Please Read Carefully and Preserve these Directions.

1st. Supposing the machine with the platform attached, and cutter-bar in its place, the Rake-frame with the gear-wheel should first be bolted tightly to the frame; be very careful that the nuts on these bolts are drawn very close and kept so, for the good working of the Rake depends wholly on these bolts holding it firmly to the machine, and if at any time you find the Rake out of order, see to these bolts the first thing—*see that they are tight.*

2d. Put the driving-shaft in its place; screw the bolts tight, and see that it turns the Rake easily.

3d. Put the Rake and Beater-arms in their places; they are numbered by a punch mark on the arms and on the gear wheel, as they were run off at the factory, but it is supposed they will go equally well in any place. Bolt the foot lever to its place, drawing the bolts tight.

4th. Bolt the Rake and Reel-Beaters to the arms; adjust the Reel-Beaters, as to height, at the *lowest* point just in front of the cutter-bar; they should be set according to the height of the crop to be cut; a little practice will tell you just how to set them, as different crops and different conditions of the crops require a slight variation in the beaters. Two divider-rods are attached to the divider of the platform by a bolt near the points; the object of these rods is to incline the grain towards the center of the platform and lift it off the divider when it leans towards it; they can be bent high or low as required. The inside fender-rod attached to the pole-bolt washer, can be set as the condition of the crop requires, so as to lift the grain and incline it towards the center of the platform when it leans towards the frame of the machine.

THE WEDGE-SHAPE WASHER is for inclining the Rake-head. In green grain the teeth of the rake should be set nearly straight or a little hooking if there is any inclination of the rake to slip over the gavel and not take it clean off the platform. When ripe and dry they should be set back; their adjustment can be made by placing the *wedge-shaped* washer between the rake-head and the rake-head holder No. 570, placing the thick side up or down as the rake-head is required to be set. The fender-board, of wood and sheet-iron, is attached by a bolt passing through the frame forward of the rake; and the bolt holding the rake-way and frame through the hole in the sheet-iron; the lead-wheel being taken off when reaping.

REMEMBER to keep all the bolts tight. The extension on the rake and beaters are to prevent grain being carried up and dropped into the gearing; they should be adjusted as near the divider as possible.

TAKE NOTICE!

Up to the year 1868, we had always marked the Cast-Iron parts of the COMBINED MACHINE with the *last two figures* of the year they were first made; thus, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67. But now we have adopted a different plan, and have numbered the several parts from No. 1 onward, so they may be ordered by number as well as by name, as they appear in the following list. You will see in this list that Nos. 58 to 67 belong to the Reel Self-Rake; therefore, when you order any of those numbers, state *whether it is for the Self-Rake or for the Machine*, that we may make no mistake. If any other piece of the Machine you want has a number on it, you should always *order by that number, and then add the name*. But if it has no number on it, then give us the name of it and the *number on the Machine*, or the year it was made.

CAST PARTS.

1. Main Drive Wheel, pattern of 1860 to '67...\$12 00 (For Main Wheel for 1868 and 1869 see No. 108.)	3. Axle Plate.....\$ 4 00
2. Main Frame, Pattern of 1862 to 1865..... 12 00 (For Main Frames for 1866 see No. 44, and for 1867 to 1869, see No. 45)	4. Iron Seat or Saddle..... 1 25
	5. Box Cap next Axle Plate..... 00
	6. Box Cap next Crank Head..... 60
	7. Outside Stirrup..... 40

(CAST PARTS CONTINUED FROM PAGE 25.)

8. Single Bevel Wheel.....	\$ 1 50	for Reel Rake.....	\$3 00
9. Spur Pinion, pattern of 1860 to '66.....	60	36. Crank Shaft, with Bevel Pinion and Crank Head complete.....	3 10
(For Spur Pinion to go with Reel Rake, to back out of gear, see Nos. 46 and 109.)		37. Lead Wheel.....	75
10. Reel Yoke and Cam.....	1 50	38. Stud for Lead Wheel.....	25
11. Closed Heel Guard.....	30	39. Shifter Holder.....	10
12. Closed Guard.....	30	40. Shifter Center Pin.....	10
(For Open Guards, see Nos. 525 526 and 542 Malleable List).		41. Shifter Handle.....	10
13. Lifter Wheel, 1862 to 1869.....	1 00	42. Box Cap next Bevel Pinion.....	60
14. Center Seat Iron (see Nos. 106 and 135).....	30	43. Clip for Lifter Rod (Flanged Bar).....	10
15. Spindle for Front Seat Iron.....	40	(For Clip for Grooved Bar, see Malleable List No. 533.)	
16. Front Seat Iron.....	40	44. Main Frame for Flanged Bar and Reel Rake.....	12 00
17. Cutter-Bar Slide, (with Cap).....	75	45. Main Frame for Grooved Bar and Reel Rake.....	12 00
18. Tightening Pull y and Stud.....	6 1	46. Spur Pinion, to back out of Gear, 1868.....	60
19. Platform Wheel, 18 inches diameter.....	3 00	47. Bevel Pinion for Single Bevel Gear.....	60
Platform Wheel, 15 inches diameter.....	2 00	48. Shoe for Closed Guard Flanged Bar.....	1 25
20. Double Bevel Wheel.....	2 00	102. Castor Wheel, 18 inches diameter.....	3 00
21. Crank Head.....	1 50	103. Axle for Castor-Wheel, 1868, (see No. 136).....	1 50
22. Bevel Pinion.....	60	104. Slide for Castor-Wheel, 1868, (see No. 137).....	1 25
23. Circle Post.....	3 00	105. Socket for Castor-Wheel.....	2 25
24. Reel Guide.....	1 50	106. Center Seat Iron, for Rubber Springs, 1868.....	50
25. Reel Pulley.....	1 25	107. Lifter Wheel, 10 inches diameter.....	1 25
26. Short Platform Axle Plate.....	75	108. Main Drive Wheel (1868 and '69).....	12 00
27. Long Platform Axle Plate.....	75	109. Spur Pinion (this goes only with Main Wheel No. 108.).....	60
28. Socket for Platform Axle, Flanged Bar.....	1 25	110. Oil Can Holder.....	10
29. Socket for Platform Axle, Grooved Bar.....	1 25	135. Center Seat Iron, 1869.....	30
30. Shoe for Open Guard, Flanged Bar.....	1 25	136. Axle for Castor Wheel, 1869.....	1 50
31. Shoe for Grooved Bar, with hole for Plow head Bolt.....	\$1 26	137. Slide for Castor Wheel, 1869.....	1 25
32. Tracker Cone.....	60	138. Shoe for Grooved Bar, with hole for Square Shank Bolt.....	1 25
34. Fender-Rod Holder and Washer.....	15	139. Axle Arm for Castor Wheel.....	1 50
35. Double Bevel Gear and Shaft.....	3 50	140. Hinge for Axle Arm.....	1 00
(Single Bevel Gear and Shaft with Pinion			

MALLEABLE PARTS.

500. Pole Hook.....	\$0 30	527. Platform and Shoe Clip.....	\$0 10
501. Oil Cup Cover.....	5	529. Cam for Reel Yoke.....	50
502. Small Corner Seat Iron.....	5	530. Bolt for Pulley.....	20
503. Large Corner Seat Iron.....	5	531. Nut for Lifter Wheel Bolt.....	10
504. Ferule for Lifter Handle.....	5	532. Platform Wheel Pin.....	10
505. Neck Yoke Ring.....	5	533. Clip for Lifter Rod Grooved Bar.....	15
506. Neck Yoke Staple.....	10	534. Cutter-Bar Head, 1862 to '65.....	50
507. Neck Yoke Ferule.....	5	535. Cutter-Bar Head for Grooved Bar, 1867 to '69.....	50
508. Whiffletree Hook.....	20	536. Axle Plate Pin.....	15
509. Small Wrench.....	40	537. Front Cap for Cutter-Bar Slide.....	15
510. Large Wrench.....	50	538. Back Guide for Cutter-Bar Slide.....	20
511. Side Lever Staple, (see No. 552).....	10	539. Clover Tracker Socket.....	75
512. Lifter Wheel Bolt.....	15	540. Clip, next Shoe for Grooved Bar.....	25
513. Center Shifter Clip.....	10	542. Open Guard for Grooved Bar.....	50
514. Belt Hooks and Eyes, with Rivets, per set.....	15	551. Washer or Platform.....	03
515. Upper Shifter Clip.....	10	552. Side Lever Staple (see No. 511).....	10
516. Lifter Wheel Crank.....	75	553. Large Staple for Lifter Lever (see No. 521).....	10
517. Raker's Stirrup.....	30	554. Washer for Front Seat Iron.....	10
518. Connection Pin.....	15	555. Washer for Tracker Spindle.....	5
519. Lifter Lever Circle, see No. 566.....	30	559. Fender Board Bolt.....	15
520. Neck Yoke Band.....	30	560. Fork for Shifter Lever.....	20
521. Large Staple for Lifter Lever, (See 553).....	10	562. Washer for connection with $\frac{1}{2}$ square hole.....	03
522. Side Lever.....	50	563. Washer for Platform.....	03
523. Tracker Spindle.....	75	567. Lifter Lever Circle, 1868 and 1869.....	30
524. Cutter-Bar Head for Flanged Bar, 1866.....	50	567. Lifter Wheel Crank, 10 inches long.....	1 00
(For other Cutter-Bar Heads, see 534, 535.)		568. Washer for Axle-Plate.....	05
525. Open Guard for Flanged Bar.....	50	569. Wrench for Connection.....	25
526. Open Heel Guard for Flanged Bar.....	50	571. New Raker Stirrup.....	50

WROUGHT PARTS.

93. Clip for Cutter Bar.....	\$ 25	98. Connection.....	\$1 50
94. Cutter Bar, complete.....	6 00	99. Shifter Lever.....	2 00
95. Lifter Rod and Lifter Wheel Crank.....	3 00	100. Fender Rod.....	60
96. Lifter Lever, complete.....	2 50	101. Dividing Rod.....	25
97. Seat Support.....	1 00		

PARTS OF SWEEP SELF RAKE.

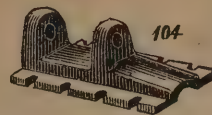
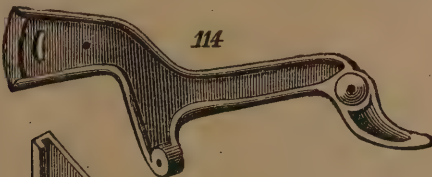
70. Frame.....	\$4 00	81. Shifter Holder.....	\$0 40
71. Gear Wheel.....	2 00	82. Cap next Gear Wheel.....	30
72. Rake Holder.....	50	83. Cap and Shaft Holder.....	1 00
73. Bevel Wheel and Clutch.....	60	84. Collar to Shifter.....	20
74. Clutch.....	40	85. Catch for Shifter.....	20
75. Pivot.....	70	86. Shaft with Clutch and Pinion.....	2 00
76. Spring Slide.....	20	87. Shifter Rod, with Spring Fork and Collar.....	1 20
77. Cam.....	75	88. Fork for Shifter.....	25
78. Washer.....	20	89. Hook and Trip (wrought).....	50
79. Stirrup.....	30	90. Rake Spring.....	50
80. Bevel Pinion.....	30	91. Clutch Rod.....	25

PARTS FOR REEL SELF RAKE.

50. Frame (see No. 111, new).....	\$5 00	115. Washer.....	25
51. Frame Circle (see No. 122, new).....	2 00	116. Box Cap next Gear Wheel, 1868 and 1869.....	75
52. Frame and Circle Brace.....	75	117. New Reel Arm for 1867.....	1 25
53. Way.....	75	118. Pairs of Ratchets for Beater and Rake	
54. Trip, (see No. 125, new).....	50	119. Arms, per pair.....	40
55. Wheel Box Cap (see No. 116, new).....	75	120. Pairs of Ratchets for Beaters and Exten-	
56. Gear Wheel (see No. 112, new).....	5 00	121. sions, per pair.....	25
57. Wheel Thimble.....	75	122. Frame Circle, 1868 and 1869.....	2 00
58. Wheel Pinion.....	50	123. Rake Way.....	1 00
59. Rake Arm (see No. 113, new).....	2 00	124. Hinged Way.....	50
60. Reel Arm (see No. 117, new).....	1 25	125. Trip, 1863 and 1869.....	75
61. Reel Holder.....	75	126. Lever for Trip.....	1 00
62. Double Box Cap.....	1 25	127. Holder for Trip Lever.....	50
63. Bevel Gear, 20 teeth (see No. 68, new).....	75	128. Hub for Trip Lever.....	25
64. Bevel Gear, 13 teeth, (see No. 69, new).....	50	129. Holder for Latch.....	50
65. Large Friction Roller.....	25	130. New Rake Arm, 1869.....	2 00
66. Small Friction Roller.....	25	541. Ratchet Clip for Rake and Beater Arms.....	25
67. Shaft with Gear and Pinion, 1868 and 1869.....	2 25	543. Washer for Rake Arm.....	3
68. Bevel Gear, 21 teeth.....	50	550. Cap for Long Pin.....	10
69. Bevel Gear, 12 teeth, 1868 and 1869.....	50	556. Latch.....	15
111. Frame, 1868 and 1869.....	5 00	557. Weight for Latch.....	50
112. Gear Wheel, 1868 and 1869.....	5 00	558. Stud for Hinged Way.....	5
113. Rake Arm, 1868 and 1869.....	2 00	561. Brace for Reel Rake Head.....	20
(The following parts of the Reel Self-Rake are used only on the Rakes made in 1867: Nos. 50, 51, 54, 55, 56, 59, 60, 61, 63, 64, 117.)			
114. Reel Arm, 1868 and 1869.....	\$2 00	564. Washers for Beater, per pair.....	08
		565. Washers for Arms, per pair.....	06
		570. Holder for Reel Rake Head.....	50
		572. Rake Guard.....	50

MISCELLANEOUS LIST.

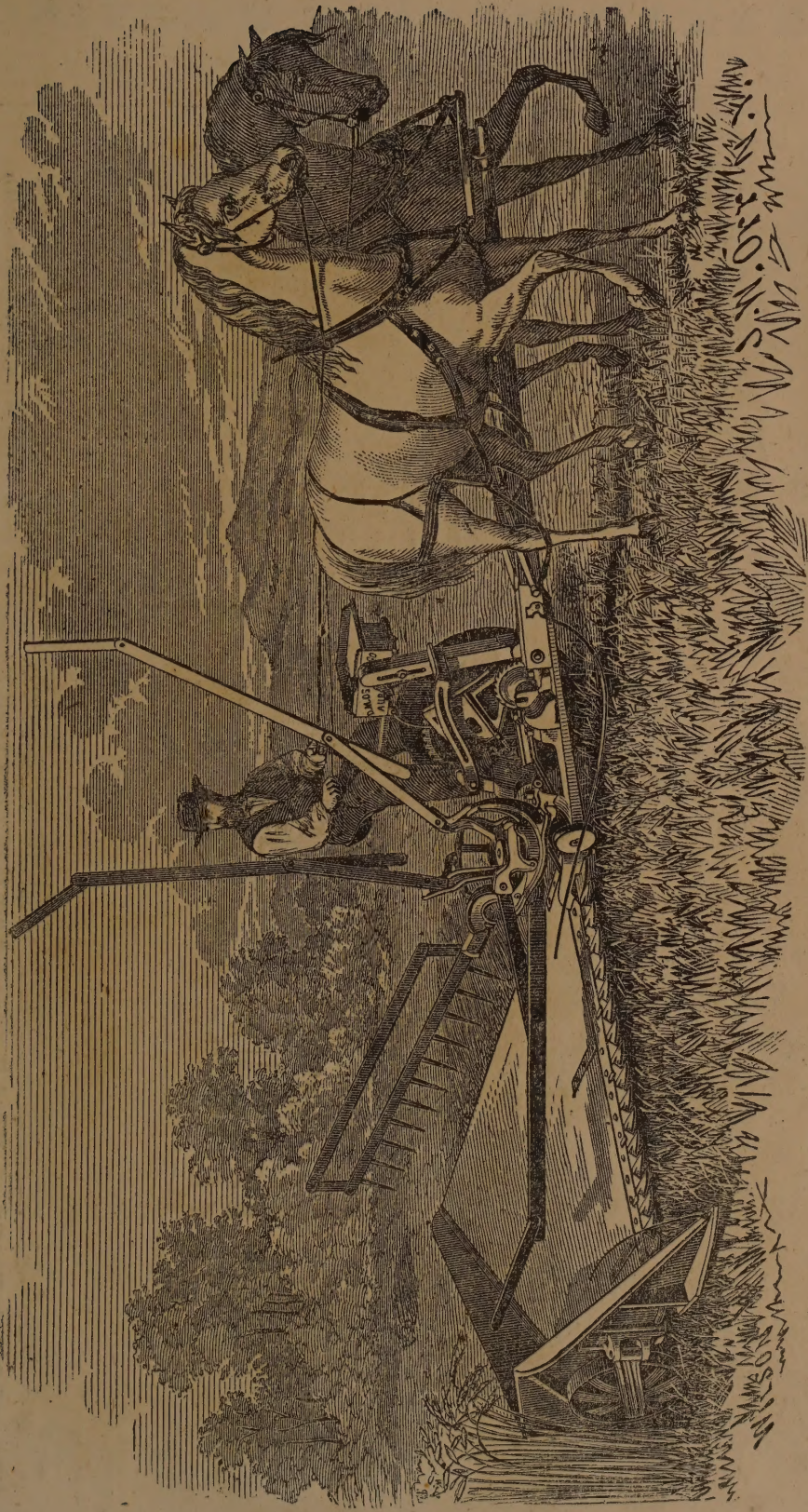
Sections, each.....	\$0 25	Clover Tracker.....	\$2 00
Blind Sections, each.....	15	Reel Post.....	75
Rivets, per pound.....	50	Reel Beaters, per set.....	40
Guard Bolts, each.....	6	Reel Arms, per set.....	40
Finger-Bar Bolt.....	15	Hand Rake.....	75
Platform Bolt.....	5	Raker's Seat Lever.....	50
Shoe Bolt.....	15	Neck Yoke.....	1 00
Pole Bolt.....	15	Single Whiffletrees.....	50
Whiffletree Bolt.....	10	Double Whiffletrees.....	1 50
Axle Bolt.....	15	Reel Bundle.....	7 00
Bolt for Box Cap.....	5	Wood Seat, all Ironed and Tool Box packed.....	15 00
Bolt for Front and Center Seat Iron.....	5	Platform.....	7 00
Bolts for the Reel, each.....	5	Reel Belt.....	2 50
Bolts for Front Seat Iron Spindle.....	15	Oil Can.....	30
Bolt for Iron Seat.....	5	Front Post.....	50
Bolt for Connection Head (2 nuts).....	10	Spring for Lifter Lever.....	25
Bolt for Lead Wheel.....	15	Tool Box and Cover.....	75
Finger-Bar, complete.....	15 00	Back Board for Platform.....	50
Crank Shaft.....	1 00	Dividing Board for Platform.....	75
Bevel Wheel Shaft.....	1 25	Slanting Board for Platform.....	25
Cutter-Bar Back, 1859 and 1860.....	2 00	Pointer Board for Platform.....	25
Cutter-Bar Back, 1861 to 1867.....	1 50	Iron Straps for Back of Platform.....	10
Shoe Rod.....	15	Iron Strap for Pointer Board.....	10
Clip for Shoe Rod.....	10	Spiral Spring for Sweep Self-Rake.....	50
Ledger Plate for Open Guard.....	10	Circle Iron for Sweep Self-Rake.....	2 00
Pole.....	2 50	Rake Head for Sweep Self-Rake.....	2 50
Reel Shaft.....	1 00	Rake Head for Reel Self-Rake.....	2 00
Revolving Tracker Stick, each.....	6	Arm for Beaters of Reel Rake.....	30
Clover Tracker Sticks, each.....	10	Arm for Rake Head, Reel Rake.....	30
Rubber Springs for Center Seat Iron, each.....	25	Beaters for Reel Self-Rake, each.....	40
Fender Board.....	1 50	Extension Arms for Reel Rake.....	10
Revolving Tracker.....	3 00		







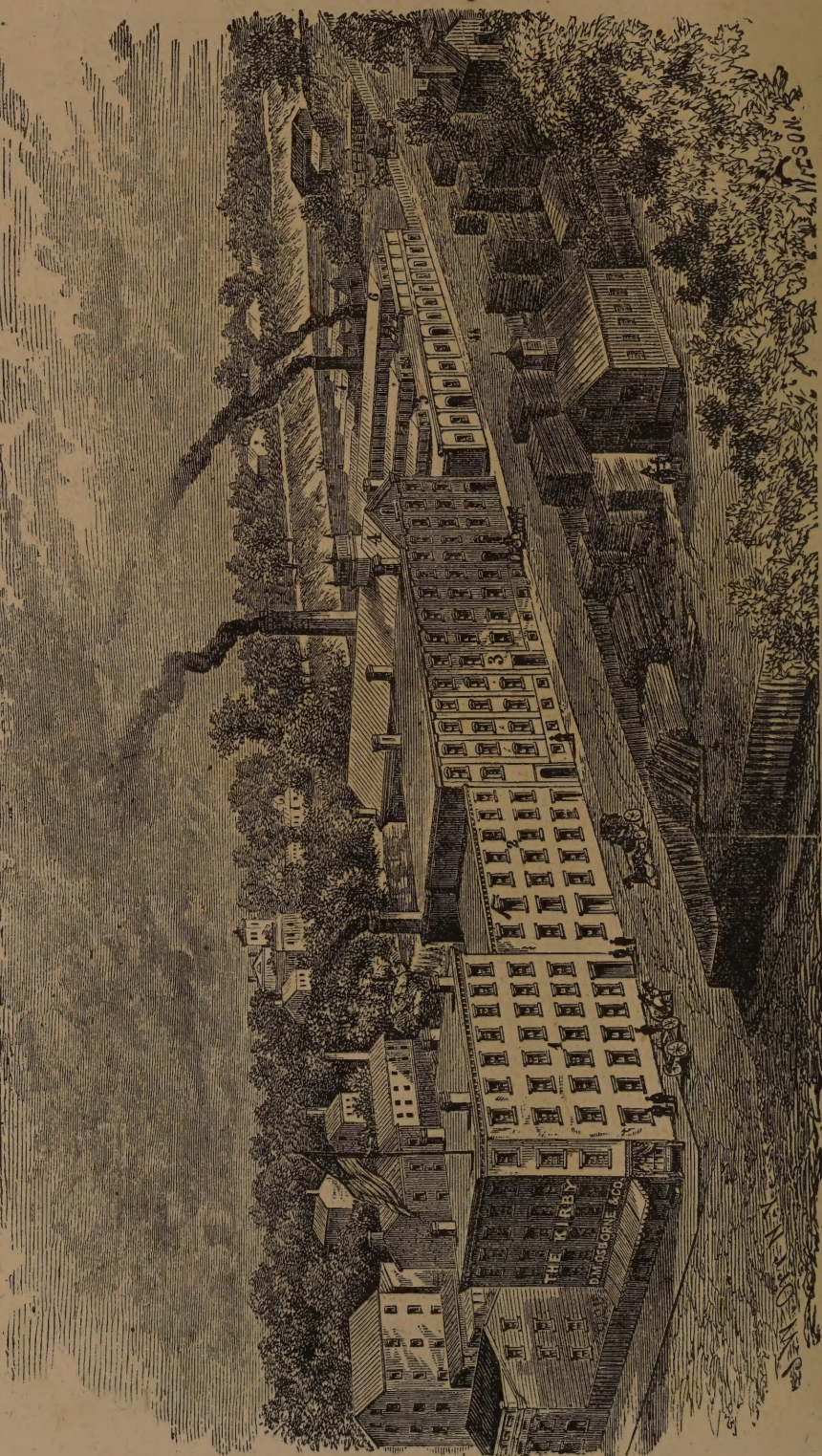




THE SIX FEET KIRBY SET UP AS A REAPER, WITH "REEL SELF-RAKE."

For Price see page 2.

VIEW OF THE KIRBY MOWER AND REAPER WORKS OF D. M. OSBORNE & CO., AUBURN, N. Y.



1. Office and Sample Rooms. 2. Wood Work. 3. Store House and Paint Rooms. 4. Iron Machinery. 5. Blacksmith Shop. 6. Malleable Iron Works. 7. Foundry, and Iron and Coal Yard.

DRIVER'S SEAT IS A LEVER.

Driver Balances the Main Frame.



The Kirby changed from a Reaper to a Mower.

Main Frame bears down just enough to follow the ground. No heavy dragging on the ground. Weight of Machine nearly all on Drive-wheel, giving the greatest cutting power.

VIEW OF THE KIRBY MOWER AND REAPER WORKS OF D. M. OSBORNE & CO., AUBURN, N. Y.



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